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THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. II.—3RD YEAR. SYDNEY: OCTOBER 14, 1916. No. 16.

ÆTIOLOGY OF CONGENITAL MENTAL DEFICIENCY.

By W. A. T. Lind, M.B., B.S.,
Pathologist, Victorian Lunacy Department.

The results of investigations into the causation of idiocy (using the term to include all grades of congenital mental deficiency) are given in text-books, journals, and papers, the most striking feature of these researches being the varied character of the factors credited with the ætiology of this condition. In order to compare Victoria with other parts of the world in this matter, the following investigation was made at the Idiot Cottage, Kew, which has 317 patients, of which 169 are males and 148 females.

The first peculiarity that struck the investigator is shown in the following figures:—

Total number of boys	169	Total number of girls	148
Boys without any friends	54	Girls without any friends	34
Boys with friends, but unvisited	30	Girls with friends, but unvisited	34
Family charts obtained	84	Family charts obtained	66

The balance of one boy and fourteen girls was not charted because they were not congenital cases, but cases of juvenile insanity. This means that 49% of the boys and 45% of the girls in the Institution are practically abandoned by their friends, and 31% of the boys, with 22% of the girls, are society's oddments—belonging to nobody. These are large percentages, and indicate a lack of family cohesion, a peculiarity which is strongly brought out when questioning the friends of the patients about their relatives. A large number do not know of the existence or whereabouts of aunts, cousins, grandparents, or even brothers and sisters. This phenomenon I regard as indicative of a state of phylatic degeneration characteristic of families in which idiocy is present. Another general impression obtained during this investigation was that, broadly speaking, the families of the victims of congenital insanity do not enjoy health, wealth, and happiness, although the value of the observation in regard to wealth is somewhat discounted by the fact that it is a State Institution. The lack of family cohesion may be due to the struggle for existence causing family interests to become subordinated to the individual's concern for himself. The idea of the investigation was to test the various suggested causes of idiocy against our 150 cases, and, incidentally, to keep our eyes open for fresh factors that might show up with any degree of frequency.

The family of each patient was investigated by the method of the heredity chart. The grandparents on both sides, the parents, uncles, aunts, and the brothers and sisters were recorded in regard to their present state of health, character, age and cause of death, if deceased. Other factors determined were:

(1) Presence of consanguinity in the parents of the patient.
(2) Disparity in ages of the patient's parents.
(3) Age of each parent when the patient was born.
(4) Position (including every conception) of the patient in his family.
(5) Was the patient a full-term child?
(6) Illness or injury to patient's mother during gestation of the patient.
(7) Injury to the patient at birth. } Post-Uterine
(8) Epilepsy or other illnesses in infancy. } Causes.
(9) Number of children surviving birth. } Mother's
(10) Number of children still-born. } Child-
(11) Number of miscarriages. } Bearing
(12) Number of children dying in infancy. } Record.
(13) Presence of syphilis in the heredity chart.
(14) Presence of tuberculosis in the heredity chart, direct or collateral.
(15) Presence of cancer in the heredity chart, direct or collateral.
(16) Presence of insanity in the heredity chart, direct or collateral.
(17) Presence of nervous diseases in the heredity chart, direct or collateral.
(18) Presence of alcoholic excess in the heredity chart, direct or collateral.
(19) Presence of crime in the heredity chart, direct or collateral.
(20) Presence of vagrancy in the heredity chart, direct or collateral.
(21) Presence of genius in the heredity chart, direct or collateral.
(22) Character of father.
(23) Character of mother.
(24) The Wassermann reaction.

It is impossible to make an investigation of this kind an absolutely accurate one, because information is intentionally withheld in many cases until cross-questioning breaks down the antagonism; but, in spite of this, we can get a general idea as to whether these suggested factors do or do not play any part in the production of idiocy in Victoria. In order to keep the work within bounds, it was decided to limit the investigation to the examination of the factors already mentioned by various authorities, and to record fresh ones that occurred with any frequency.

Consanguinity.

In the 150 cases examined, the following results were obtained: One instance of the father and mother being second cousins; one instance of the paternal grandparents being first cousins. In the case where the father and mother were second cousins, the father had also been insane.

Consanguinity by itself was not a factor, therefore, in the causation of congenital mental deficiency in the cases under examination.

Disparity in the Ages of the Patients' Parents.

Analysis of 127 Cases.

Table I.

No. of Years.	M.	P.	No. of Years.	M.	P.
0	13	13			
1	8	13	16	—	—
2	3	13	17	—	—
3	—	9	18	—	1
4	3	7	19	—	1
5	—	5	20	—	1
6	3	4	21	—	—
7	—	8	22	—	2
8	—	2	23	—	—
9	—	9	24	—	2
10	—	3	25	—	1
11	—	5	26	—	—
12	—	2	27	—	1
13	—	1	28	—	1
14	—	4	29	—	—
15	—	1	30	—	1

Example.—Under the figure 6, which denotes the number of years, there are three mothers six years older than their husbands, and four fathers who were six years older than their wives. There were thirteen cases where the parents were the same age.

This chart shows that there is no unusual disparity in the ages that could be regarded as a constant feature of congenital mental deficiency.

Ages of Parents When Patient Was Born.

Analysis of 127 Cases.

Table II.

Age.	Mothers.	Fathers.	Age.	Mothers.	Fathers.
15	1	—	25	9	5
18	2	—	26-30.	35	35
19	2	—	31-35.	27	25
20	4	2	36-40.	12	20
21	6	4	41-45.	5	11
22	7	2	46-50.	—	11
23	9	3	51-60.	—	5
24	8	3	61	—	1

Example,—There were four mothers and two fathers aged twenty at birth of patient.

This chart does not indicate any extremes in the ages of the parents at the time of the patients' birth.

Patient's Position in the Family, including all Conceptions.

This table should be read in conjunction with Table IV., showing the number of conceptions in the family, including still-borns and abortions.

Table III.

First	47 out of 150	Ninth	1 out of 32
Second	28 out of 143	Tenth	3 out of 25
Third	25 out of 132	Eleventh	4 out of 16
Fourth	9 out of 112	Twelfth	1 out of 12
Fifth	13 out of 95	Thirteenth.	1 out of 6
Sixth	7 out of 78	Fourteenth	——
Seventh	7 out of 53	Fifteenth	——
Eighth	5 out of 43		

Example.—There are 28 patients who are second in the family out of 143 possibles.

Number of Conceptions in the Families of the Same Cases as the Previous Table.

Table IV.

No. of Conceptions.	Families.	No. of Conceptions.	Families.
1	7	9	7
2	11	10	9
3	20	11	4
4	17	12	6
5	17	13	3
6	25	14	1
7	10	15	1
8	11	16	1

Example.—There were 20 families with 3 conceptions.

These two tables show that the earlier born children are more liable to be born idiot than those born later on.

Was the Patient a Full-Term Child?

There were three out of 150 who were recorded as being immature: Two males, seven and eight months respectively; one female, eight months' gestation.

Injury or Illness of Patient's Mother During Gestation of the Patient.

Fright figures the highest; but, like "maternal impressions," it is frequently remembered subsequent to the discovery that the child is not mentally sound. Fright, 7; tuberculosis, 4; syphilis, 2; fall, 3; typhoid fever, 1; nephritis, 2; alcoholism, 1; worry, 2; metritis, 1; delicate, 5; chill followed by oligohydramnios at confinement, 1.

Injury to the Patient at Birth, or Difficult Birth.

Eighteen males and six females come under this heading. Of the males, one was born without amniotic fluid, two were injured during delivery, five had instrumental delivery, ten were simply difficult births. Of the females, one was injured at birth, four had instrumental delivery, one was difficult birth only.

There are usually more male idiots born than female idiots, and this is considered by some authorities to be due to the larger size of the male head, necessitating instrumental delivery or more severe moulding. The above figures, although they show that the males seem to have more difficulty at confinement, do not point to parturition difficulties as being an appreciable cause of congenital mental deficiency.

Patients Who Have Epilepsy or Other Illnesses During Infancy (Post Natal Factor).

Table V.

	Patients.		Patients.
Epilepsy	63	Bright's Disease	1
Measles	4	Fall and Epilepsy	2
Marasmus	5	Epilepsy and Paralysis (Spastic Diplegia)	1
Meningitis and Epilepsy	2	Deaf and Dumb	1
Meningitis	3	Fall	1
Syphilis and Epilepsy	1	Pemphigus	1
Fall and Pneumonia	1	Epiloia	2

It will be seen by this that a large number of congenital mental deficients suffer from epilepsy. This table is not very satisfactory in regard to the incidence of epilepsy, because it is difficult to distinguish, from the notes of the cases, which date back many years in some instances, the patients which developed epileptic fits later on in the course of the disease from the ones in which the epilepsy was observed at the commencement of the disease.

Number of Children in Patient's Family Surviving Birth.
(Out of 150 cases.)

Table VI.

Children in the Family.	Families.	Children in the Family.	Families.
1	9	8	13
2	19	9	11
3	22	10	6
4	17	11	4
5	24	12	1
6	12	13	1
7	11		

Example.—There are seventeen families which have four children surviving birth.

Authorities lay stress on the fact that degenerated types are very prolific; but these figures do not bear out this statement.

Number of Still-Born Children in 150 Cases.

Table VII.

Still-born.	Families.	Still-born.	Families.
1	10	4	—
2	3	5	—
3	2	6	1

Total—16 cases.

Example.—There are three families with two still-born children.

Number of Miscarriages in the Families of 150 Cases.

Table VIII.

Miscarriages.	Families.	Miscarriages.	Families.
1	24	5	3
2	8	6	1
3	2	Several	2
4	5		

Total—43.

Example.—There are eight families with two miscarriages.

Number of Children Dying in Infancy (150 Cases).

Table IX.

Died in Infancy.	Families.	Died in Infancy.	Families.
1	37	4	—
2	9	5	1
3	4		

Total—51.

Although regarded with suspicion in its relationship to syphilis, it cannot be said that still-borns and miscarriages are always syphilitic. These three tables bear out the post-mortem findings in cases of idiocy in which evidence of congenital syphilis is very common.

Presence of Syphilis in the Heredity Charts of 150 Cases.

Table X.

	Cases.
Direct Heredity	5
Collateral Heredity (both paternal uncles)	2

In the direct heredity:—

(1) Father, mother, and maternal grandmother were syphilitic, and patient gave a negative Wassermann reaction.
(2) Father syphilitic, and patient gave a feeble positive Wassermann reaction.
(3) Father syphilitic. Wassermann test of patient was not applied.
(4) Father syphilitic. Patient gave a negative Wassermann reaction.
(5) Mother syphilitic. Patient's blood was not examined.

Presence of Tubercle in the Family Charts of 150 Cases.

There were 66 families which had tuberculosis.

Table XI.

	Families.
Father	16
Mother	11
Grandparents only	11
Parents and Grandparents	6
Collateral only	27

The presence of tubercle in the collaterals (aunts, uncles, brothers and sisters) has more significance than syphilis in the collaterals.

Presence of Cancer in the Charts of 150 Cases.

Thirty-three charts showed cancer.

Table XII.

	Families.
Father	2
Mother	2
Grandparents only	14
Parents and Grandparents	1
Collateral only	14

Cancer was charted because it occurred with more than ordinary frequency among the causes of death.

Presence of Insanity in the Family Charts of 150 Cases.

There was insanity in 46 families.

Table XIII.

	Families.
Father	5
Mother	8
Grandparents alone	6
Parents and Grandparents	1
Collateral alone	28

Presence of Nervous Diseases (150 Cases).

Nervous diseases were present in 34 families.

Table XIV.

	Families.
Father	5
Mother	6
Grandparent	5
Collateral alone	18
Direct and Collateral	3

Presence of Alcoholic Excess in 150 Cases.

Eighty-two families showed alcoholic excess.

Table XV.

	Cases.
Father	28
Mother	5
Mother and Father	2
Grandparents alone	21
Parents and Grandparents	18
Collateral alone	8

Association of Crime with Idiot-Producing Families.

Table XVI.

	Families.
Paternal Grandfather (a murderer)	1
Step-Sister	1
Father	2
Total	4

Association of Vagrancy in 150 Cases Charted.

Table XVII.

	Families.
Father	1
Brother	3
Sister	1
Paternal Uncle and Brother	1
Total	6

Association of Genius with Idiocy in 150 Families Charted.

Only one family claimed genius. In it, two brothers and one sister were scholarship holders.

Question of General Character of Parents.

Fifty-seven fathers had something against them, such as wife beater, drunkard, wife deserter, violent temper, etc.

Thirty-four mothers were either drunkard, weak-minded, slovenly, etc.

Seventeen of the mothers and fathers were together unfit.

Wassermann Reaction.

Fifty-four bloods were examined.

Table XVIII.

	Cases.
Negative	30
Positive	5
Partial	12
Feeble Partial	7

With us, the Wassermann test in congenital syphilis is unreliable. Cases of idiocy known to be syphilitic by investigation and consultation with the family physician have given us negative reactions.

Summary.

So far as the cases undergoing investigation are concerned, we can discount certain factors which have been suggested as the cause of idiocy. These are consanguinity *per se*, disparity in ages of parents, extremes of age in parents when patient was conceived, and immature births.

In the examination of these factors we have secured a negative finding, which is as valuable as a positive result. We now have to search for constant factors or factors occurring with any degree of frequency out of the ordinary, and then to see if there is any possibility of arriving at some conclusion as to the cause of idiocy. In the case of illnesses in the mother during gestation, we find illnesses of the same kind which fail to produce idiocy in other women's progeny; hence, illness of the mother by itself throws no light upon the subject. We must try and search for some cause or series of causes amongst the diseases and happenings recorded in the tables of analysis. Firstly, in regard to the patient's position in the family, it appears that the earlier born are more frequently affected than the later born. This finding is interesting, because it has already been asserted and contradicted in literature concerning idiocy. This tendency to affect the earlier born is also characteristic of families with tuberculosis, which is regarded as a disease dependent on poor stock. Clouston draws attention to the relationship between tubercle and dementia præcox. Cancer is most frequent at the time of life when the body tissue is changing, and undergoing a degeneration of its activity, so that, although none of the factors mentioned in this paper occurs by itself with sufficient frequency to justify us in regarding any one of them as the sole cause of idiocy, taken all together they present a strong argument in favour of the presence of a phylogenetic degeneration in a large percentage of the cases. But there are idiots whose family charts appear to show no suggestion of family degeneration. They show, however, that the child had a severe illness in infancy (before the idiocy was detected) or some trauma at birth. According to Bolton's work on the development of the præfrontal cortex, the psychic cells in this region are not developed till some considerable time after birth; consequently, any interference with that development, or damage to the præfrontal region before complete development had taken place might reasonably be supposed to produce some form of mental deficiency. It is probably in this latter way that syphilis has its say in the production of idiocy. Mott is of the opinion that a nervous system affected by the spirochaete *in utero* prevents the child being born alive; but there is nothing to prevent the child's nervous system becoming affected after birth. The same author says that stigmata of congenital syphilis are not essential, and this we have verified for ourselves and reported upon in this journal. In spite of the inability to obtain from the friends and parents evidences of syphilis in the parents, the post-mortem findings and the returns in the cases of miscarriages already tabulated are quite sufficient evidence that congenital syphilis causes a large number of idiots.

It appears from the investigation of these cases that there are two causes of idiocy. The one is phylogenetic degeneration, and the other is disease or trauma of the brain in early life. Either cause can produce congenital mental deficiency, as this condition is now defined. Strictly speaking, the degenerative type only is congenital. Both types produce idiocy.

In regard to the relationship of alcoholism to idiocy it is impossible to say with certainty from the evidence obtained during this investigation, whether the alcoholism is an indication of stock degeneration, or one of the causes which produce phyletic degeneration.

COLOUR AND ITS RELATION TO TUNE.

By **G. H. Taylor, L.R.C.P. (Ed.), L.R.C.S. (Ed.),**
Medical Officer, New South Wales Government Railways and Tramways, Sydney.

A man may be regarded as having a full colour sense through sight when he can recognize and name correctly red, green, white, grey, yellow and blue, under varying conditions of light and shade. A person may name a colour correctly and yet not recognize it in the sense that a colour-normal person does. Men differ in the alertness and accuracy of their perceptions, so that persons with an equal degree of colour defect may vary considerably in the correctness of their answers. This condition is observed when testing the vision of employees. When two engine-drivers with a similar defect in vision are tested with semaphore arms at varying distances, one will be more frequently correct in his answers than the other. A number of apparently colour-normal men have much difficulty in distinguishing between pale blue and green. To have, from an emotional standpoint, a full colour sense, a person should not only be able to name and recognize colour, but should also have a sense of tune. An ordinary man has little more than a recognition and appreciation of simple tune, such tunes as he can whistle or hum. A person who has no sense

of tune or is indifferent to tune approximates in his emotional condition to the colour-blind, particularly in regard to the expression of emotion by the voice. Yet it is very difficult to distinguish by emotional manifestation between a tone-deaf person and one who is colour-blind.

There is, however, a distinction; but I distrust my ability of expression to make this distinction clear in words. The tone-deaf person, in my limited experience of this degenerative condition, has a voice of even more monotony in conversation than the ordinary person who is red-green-blind. A tone-deaf person in the few I have examined in colour may be defective in that respect, but I have not yet found one red-green-blind; a curious fact. It may be that about an equal number of persons are tone-deaf or tone-defective as are colour-blind or colour-defective. Whether tone-deaf persons are to be found only in families in whom there is a colour-blind inheritance, whether the two conditions are quite distinct, whether if quite distinct each follows a law similar to the colour-blind law of inheritance, can only be proved by a careful investigation of the family history of persons who are found to be tone-deaf. The law of transmission in defect which is found in the colour-blind, both male and female, may, I suspect, be extended to other degenerative conditions.

The experienced mind will promptly note that there is a difference in the mental processes necessary to observe and define a physical deformity and a sense deficiency. The former is obvious to the observer, the latter may be concealed from him by mental conditions in more than ordinary development and activity. The statement "Colour-blindness is much more common in men than in women" is, I think, true; but to decide how much more common it is not only necessary that many thousands of cases should be examined by efficient persons who use reliable tests, but also it must be remembered that the ordinary educated woman from her early youth has been training her perception in shade and colour, and is much more interested and observant in such matters than is the ordinary man. I have examined an intelligent railway man, whose only fault in the lantern test was that he was unable to distinguish between pale green and a dull white with a trace of yellow in it, yet he failed to see any numbers when examined by Stilling's plates, excepting 1, 3 and 9, and on the first occasion he failed in 3. He had, therefore, a serious colour defect. No doubt many of the higher types of colour-blind women, if their examination were confined to a lantern test, would either be judged as having a normal sense or at most as having a slight defect. As mind defects vary from idiocy to mind weakness and instability, so colour or tone defects vary from blindness or deafness to abnormal indifference. It is, I think, obvious that deafness to tune and blindness to colour are degenerative conditions. This may even be extended to a nation in which there is a marked absence of emotional creative genius. The defective man is unable to recognize certain wave-lengths in sound or sight, and to their appeal is either deaf or blind. No doubt a mere recognition of colour or of tune is a primitive condition, and not much removed from what is found in animals. The evolution of sense emotion through light and sound is essentially confined to life. The discovery by the mind of natural law, which exists independently of human life, is a purely intellectual process, yet the intellect and sense emotion together move in evolution, the one influencing and modifying or supporting the other. In conclusion, the wave-lengths of sound are different to the wave-lengths of light, and it is probable that the distinction between the colour-blind and the colour-normal in the appreciation of music is that the former is not emotionally influenced by colour and the other is. The evolution in the avenue for the conduction of light or sound and in specialized cells in the brain has not led to increased acuteness in human sight or hearing; the mere perception of light and sound is more acute in many animals and birds. Apparently it has been in response to a demand of emotional evolution, a more artificial and unstable condition than is found in birds. The evolution of humanity in its highest expression is an increasing knowledge of the supreme energy responsible for the creation and continuance of life and its environment; yet evolution through the intelligence and senses of human life can never find its complete expression in an individual as it does in each variety of bird, but does so in the record of human progress and its influence through human agency upon man and woman.

Reports of Cases.

A CASE OF MULTIPLE ABSCESSES OF KIDNEY ORIGINATING IN OBSTETRIC TRAUMA.

By **Ralph Worrall, M.D.R.U.I., Ch.M.,**
Gynaecologist to the Sydney Hospital.

Mrs. R. came to me in February, 1915, complaining of complete incontinence of urine since her confinement, twelve months previously. The waters had come away three hours before labour began. After she had been nine hours in severe labour the doctor had turned the child, because the hand had presented with the head.

Examination showed a very large vesico-vaginal fistula, with prolapse of the vesical mucosa. The fistula extended to the right and anteriorly through the cervix into the body of uterus, and admitted two fingers.

On March 4, 1915, the fistula was closed by the flap-splitting method. Although perfect union followed and the function of micturition was restored, a leakage of urine continued. There were attacks of pyrexia at intervals, diagnosed as due to pyelitis of the right kidney.

On June 11 I dissected up the bladder, and discovered a tiny vesico-uterine fistula, which was closed with buried catgut sutures. Union took place, but the leakage continued.

In January, 1916, milk injected into the bladder did not escape, even when the bladder was distended, indicating that the leakage came from a ureteral fistula. Dr. Harry Harris kindly carried out cystoscopy, and catheterized the ureters, with the result that the catheter passed a normal distance into the left ureter, but only one inch into the right.

On January 22, 1916, ether was given and an abdominal section performed. I removed a large pyosalpinx on the right and ovarian abscess, the size of a small orange, as well as the appendix, left tube and entire uterus. The adhesions were very dense, with matting together of all the organs, including the bladder and small intestines. There

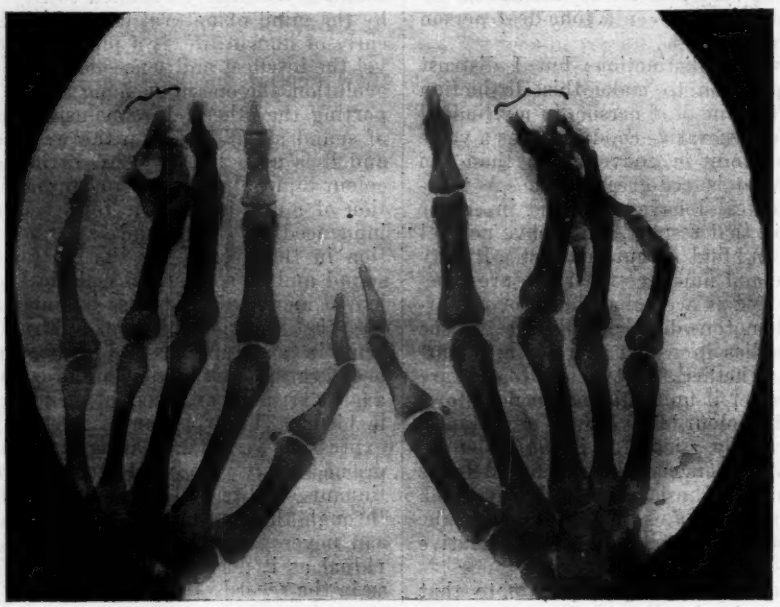
[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on September 8, 1916.

was great induration along the course of the ureter, most marked near the bladder, but also above pelvic brim, so that, even in this situation, the ureter could not be isolated. The pelvis was drained through the open vagina.

The patient recovered fairly easily; for the first 48 hours the pulse-rate was 120 to 150 and, as usual, in her case there was much anæsthetic vomiting. The leak continued into the vagina, but to a lesser degree.

Examination of the uterus removed showed a probe opening through the anterior cervical wall, high up.

The patient was re-admitted on June 18, 1916, with the history that, for six weeks, she had had pain in the right kidney in attacks accompanied by rigors, fever and vomiting. During each attack the leakage of urine *per vaginam* ceased, and subsequently recurred. As was the case before, only two or three ounces of urine were passed *per urethram* every three or four hours; this urine contained a trace of pus, but no albumin.



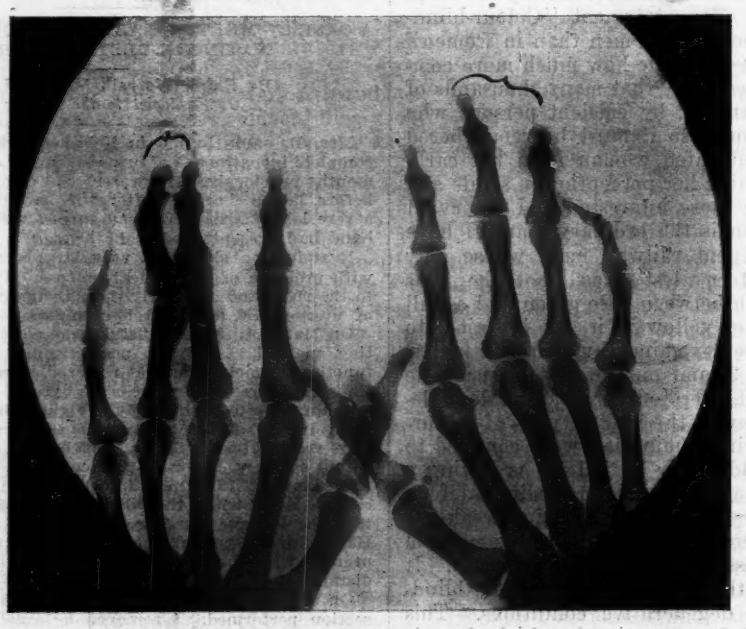
Skiagram I.
C. Unmarried.

On June 19 nephrectomy was done by Edebohl's lumbar incision. No muscle was cut and no vessel required ligaturing in the parietal wound. The kidney was very adherent, and had to be shelled out of its capsule. In separating the ureter to allow of its being brought out at the lower angle of the skin wound, some very foul urine escaped.

Slight oozing from the inner surface of the capsule was disregarded. A large rubber drainage tube was inserted and the wound closed with through-and-through silkworm-gut sutures.

The specimen is an elongated, lobulated kidney, which, on section, showed marked softening and many abscesses the size of large peas. There was moderate dilation of the pelvis and calices.

Not much shock followed this operation; but, as usual, much vomiting. Seven drachms of urine were drawn off from the bladder immediately after the operation; no more could be obtained for 24 hours, when 3 i. was evacuated. During the next 24 hours there were 3 v., which gradually increased to 3 iv. for the 24 hours of the fourth day. On the fifth day there were 3 x., on the sixth day 3 xx., and on the eighth day 3 xxx. Each specimen contained a considerable quantity of albumin and pus. The left kidney was slightly enlarged and tender. The temperature and pulse, which had become normal, ran a hectic course from July 6th to the 13th, and then became normal again. All symptoms subsided rather rapidly, and the patient left the hospital on July 18th, well, but frail, expressing herself as being "the happiest woman in Sydney," because of the absence of the leakage of urine. That drawn from the bladder was quite clear and free from albumin and pus for several days prior to her discharge.



Skiagram II.
D. Female. Both Hands.

Remarks.—The case is another example that one must not assume that the most apparent lesion is the only lesion or the most important. A tear of the ureter is not mentioned in any of the textbooks on midwifery. One cannot criticize the conduct of the labour without knowing more about it. If the child were forcibly dragged through an undilated os, such a censurable act would account for the injuries discovered.

One would think that a hand with head could be discovered at an early period of labour, and replacement or bipolar version resorted to before all the *liquor amnii* had drained away.

Catheterization of the ureters at an earlier period would have saved me much worry.

The way in which complete anuria following nephrectomy gradually disappeared may serve to reassure surgeons under similar circumstances.

The ovarian abscess and pyosalpinx may be regarded as a residuum of the puerperal infection.

SYNDACTYLISM.[1]

Report of Three Cases Occurring in One Family, in which the Deformity has been Present for Five Generations.

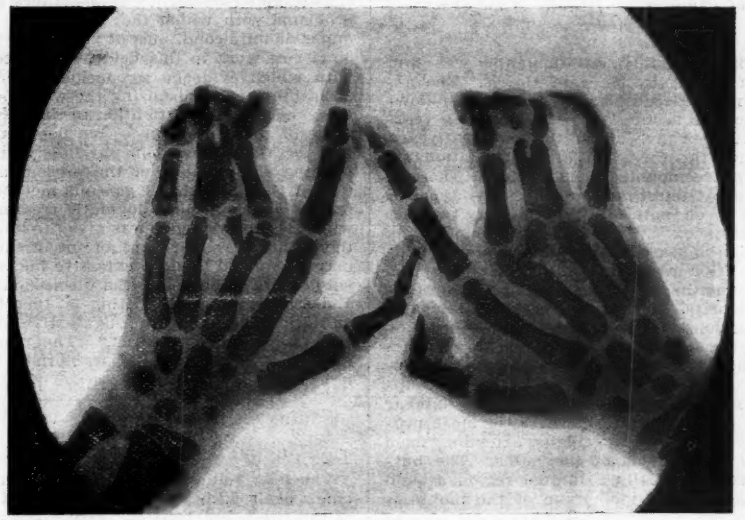
By **J. G. Edwards, M.B., M.S. (Sydn.),**
Sydney.

By the courtesy of Dr. Andrew Davidson, I am able to show you to-night skiagrams of three cases of syndactylism, and also to detail to you the family history of this affection as present in five generations.

Beyond a description of the deformity and descriptions of the various surgical measures for its relief, very little is written on this malformation.

Holt describes it as one of the "stigmata of degeneration," and states that it is more common in persons of weak intellect. In this present series, two cases of mental disease have occurred, *viz.*, in the grandfather, who died in a mental hospital and whose insanity was attributed to an accident, and in one of his daughters, who is at present at a mental hospital.

Osler states that the deformity is commoner in the children of syphilitic parents. We have no information of this point in regard to these cases.



Skiagram III.
Male, Aged Five. Both Hands.

The family puts forward a tradition to explain their affliction, and which I give without comment.

> "The father was a bad man, while the mother was a good woman, and prayed that her children should be marked, so that she should know them."

The family history is as follows:—

1. Great-great-grandfather. — Luke B. and his two brothers had both hands affected. Nothing is known of the after history of the two brothers.

2. Great-grandfather. — John B. (only son of Luke B.). Right hand affected.

3. Grandfather.—John B., only son, died insane. The insanity is said to have been due to an accident. His wife died of a right hemiplegia.

4. Daughters (6); no sons. — A., married, both hands marked. B., married, no mark. C., single, melancholia, both hands marked (Case 1). D., married, both hands marked (Case 2). E., died in infancy, both hands marked. F., married, no marks.

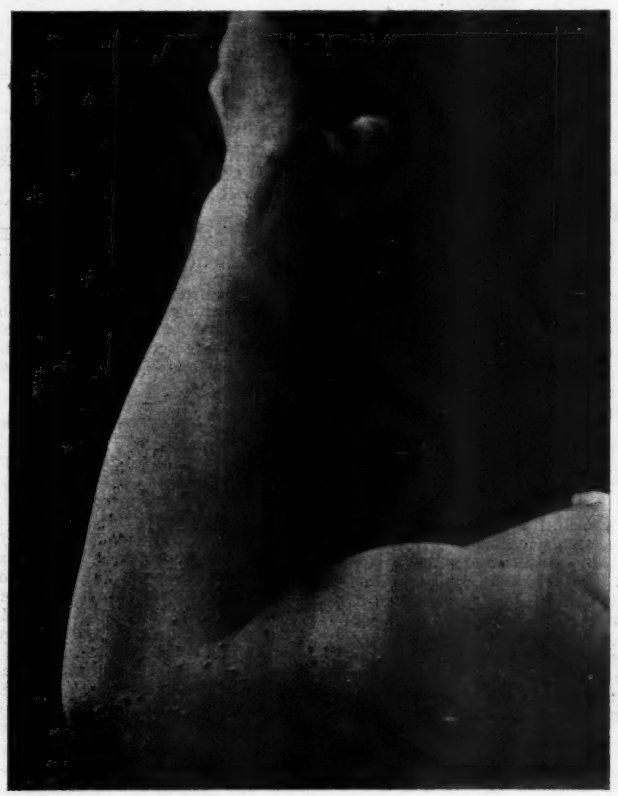
5. Daughter A. had six sons, two of whom are affected in both hands. Daughter D. had two children. (1) Boy, 5, both hands and feet marked (Case 3). (2) Girl, 4, both hands marked.

The following is a brief description of skiagrams:—

Skiagram 1. — Hands of third daughter of John B. Skiagrams show also polydactylism, with three extra phalanges between digits III. and IV., and also a branching middle phalanx in digit IV., right.

Skiagram 2.—Sister of above; both hands affected.

Skiagram 3.—Son of 2; both hands affected; polydactylism both hands, and, in addition, there is a branch of the metacarpal of digit III., both hands.



Xanthoma diabeticorum (see p. 320).

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on September 8, 1916.

A CASE OF XANTHOMA DIABETICORUM.[1]

By Norman Paul, M.B., Ch.M. (Syd.),
Honorary Assistant Physician for Diseases of the Skin, Sydney Hospital.

Xanthoma diabeticorum is a rare eruption, and was first described as a clinical entity by Malcolm Morris. The patient C.T., a female, married, æt. 38 years, gave the following history. An abdominal section was performed ten years ago. Headaches have been present for the past two years, but more severe since the cessation of menstruation six months ago, and was accompanied with flushes. There is now some dyspnœa, great thirst, and an enormous appetite. Shooting pains have been noticed in both feet, together with numbness in the index finger of the right hand. Six months ago an eruption appeared on the elbows and shoulders, but disappeared after a month. The present eruption was first noticed two months ago, and since has been gradually increasing in intensity. The arms were the first parts affected. On examination, the distribution of the eruption is observed to be symmetrical. It affects the dorsal surfaces of the arms, and is especially grouped around the elbows and shoulders, whilst the knees show a similar grouping. There are a few scattered lesions on the lumbar region of the back. The eruption, however, is most profuse on the posterior surfaces of the thighs, extending from the popliteal spaces to the folds of the nates. The buttocks are also involved, especially a limited region around the gluteal cleft. The mucous membrane of the mouth is unaffected. The eruption is composed for the most part of discrete papules varying from pin-head to hemp-seed size, sharply defined, somewhat rounded or conical in shape. The early papules are dull red in colour; but as they progress they show a yellow summit, and thus bear some resemblance to acne pustules. The older lesions show a greater preponderance of yellow, and in some capillaries are seen coursing over them. The papules are firm to the touch, and, on puncture, are found to be solid. Itching was the only subjective symptom complained of. The urine analysis showed no sugar; but Malcolm Morris states "that, as a general law, there is, has been, or will be, sugar in the urine," so that it becomes a matter of importance to recognize this eruption, as it may be the only clinical manifestation of diabetes.

Reviews.

GASEOUS METABOLISM.

During recent years the work of Dr. A. Krogh has occupied a distinguished place in the literature of the physiology of respiration. To him are due many additions to our knowledge in this field, and many improvements in the technique of respiratory gas-analysis. It is with some interest, therefore, that physiologists will receive a monograph by Dr. Krogh on the branch of physiology in which his name is already so familiar.

Dr. Krogh's monograph[1] is essentially a book for those actually working on the subjects with which it deals. It will be welcomed by such investigators, not so much for the new information which it conveys, as for its painstaking criticism of existing data. The author has been most conscientious in the examination of his material. He has subjected many series of numerical results to statistical analysis, to determine whether the conclusions drawn from them are justified. He points out that the figures published by investigators frequently do not justify the deductions which have been made from them and which have become widely accepted. He rightly insists that all series of results ought to be submitted to a simple statistical treatment before an attempt is made to draw conclusions from them. The very thoroughness with which Dr. Krogh has dealt with his material has led him to give prominence to those questions which have been the subject of numerous researches, but of which the solutions are still in doubt. He calls attention to the fact that many investigations of the respiratory exchange under different circumstances throw no light on the problems with which they deal, since they were not made under definite conditions of general metabolism. The physiologist at work in this field will appreciate the discernment with which evidence is considered, and will recognize the desirability of emphasizing the weak points of an investigation, and of calling attention to the many gaps in our knowledge of these problems. One not familiar with the literature of this branch of physiology may find difficulty in forming a clear idea of the present state of our information of the problems of gaseous metabolism and would prefer, no doubt, a more dogmatic treatment of the subject in which less prominence was given to inconclusive work. What the author says in regard to one of the sections of his book may be applied to some extent to his treatment of the whole subject: "The outcome of a discussion of the heterogeneous and scanty material existing is, therefore, less a statement of results than a caution against results and some suggestions for further research." The monograph contains the exhaustive bibliography characteristic of the series to which it belongs.

MEDICINE.

The first volume of the 1916 Edition of "Practical Medicine"[2] deals with general medicine. It ranges over diseases of the chest, heart, blood-vessels, blood, ductless glands and kidneys, infectious disorders and perversions of metabolism. The greater part of the work of the past year appears to be covered very satisfactorily, especially the section on diseases of the blood-vessels, which is an excellent presentation of the more recent opinions on this subject. There is also an interesting resumé of the experience in American dispensary practice of the value of radiographic findings in the diagnosis of pulmonary tuberculosis. The "fasting treatment" of Allen receives appropriate mention in the section on diabetes, and a long series of successful cases is cited.

In general, this volume may be recommended to the practitioner who desires to keep abreast of what is being done in the realm of medicine, without having to wade through the ever-multiplying literature himself.

DACTYLOGRYPOSIS.

Dr. K. St. Vincent Welch writes a brief account of a deformity of the little finger of each hand in four members of one family. The first interphalangeal joint in each hand was flexed at a right angle and firmly fixed. The individuals affected are a male, the male child of this man's sister, the male child of his paternal aunt, and his paternal great uncle.

INFANT FOODS.

At the annual meeting of Virol, Limited, held in London on June 27, 1916, the chairman stated that it was a striking tribute, not only to the power of the British Navy, but also in an especial degree to the efficiency and courage of the mercantile marine that, in the peculiar circumstances of the times, the business of the country, with all its vast requirements, had been carried on and so large an export trade maintained. After referring to the fact that Virol was being used in over 1,500 charitable institutions, including hospitals, sanatoria and clinics, he proceeded to point out that it was gratifying that, although manufacturing and distributing costs of the firm has risen substantially, they had, as a result of a record increase in their sales, been able to show improved results without having advanced their prices to the public.

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on September 8, 1916.

[1] The Respiratory Exchange of Animals and Man, by August Krogh, Ph.D., Reader in Zoophysiology, University of Copenhagen (Monographs on Biochemistry), 1916. London: Longmans, Green & Co.; pp. 173, with diagrams.

[2] The Practical Medicine Series: General Medicine, under the Direct Editorial Charge of Charles L. Mix, A.M., M.D.; Edited by Frank Billings, M.S., M.D.; Vol. I., Series 1916. Chicago: The Year-Book Publishers; Demi 8vo., pp. 384. Price, 7s.

The Medical Journal of Australia.

SATURDAY, OCTOBER 14, 1916.

Organisation for Military Purposes.

The Director-General of Medical Services has issued a memorandum to the medical profession explaining the position of medical practitioners in the present crisis. We were able to publish the text of this memorandum last week immediately after it had been issued. General Fetherston deals with the situation boldly, assuming that in any event regular reinforcements will be sent to the front. Although the question of compulsory service abroad is one which lies outside the scope of medical affairs, we cannot refrain from a passing reference to it. The end of the war depends on the adequate supply of men. The Empire has the right to demand of its citizens the service necessary to expedite victory. Individual interests cannot count; the honour and safety of the nation are at stake. Since Australia has the duty to contribute her quota of men and since the supply of those who elect to go of their own free will is inadequate for the present requirements, the more equitable method of compelling all who are physically fit to take up arms must be adopted. The members of the medical profession have not shrunk from their duty under the voluntary scheme, and we feel convinced that they will now support the proposals of the Prime Minister and thus uphold the honour of Australia.

The position of medical practitioners at the present moment is clear and simple. Unmarried or widowed men between the ages of 21 and 35 years have enrolled themselves as ordinary citizens. These men can claim exemptions, as has been explained in these columns (see *The Medical Journal of Australia*, October 7, 1916, p. 297), in the manner prescribed for ordinary citizens. Their services may be required for combatant purposes, but it is improbable that they will be so used. For the present no others are compelled to be enrolled. It is, however, anticipated that further proclamations will be issued in the future calling upon those in other classes to join the Citizen Forces, and we will assume that all those so enrolled may be required to serve with the Australian Imperial Forces abroad. Under these circumstances the Director-General has made provision for the future. He asks every member of the medical profession to enrol himself voluntarily at once. Those who do so will be given commissions in the Australian Army Medical Corps, and, in the event of a proclamation being issued calling up the classes to which they belong, they will be exempted from ordinary military duty. The object of this general voluntary enrolment is to enable the military authorities to make a wise selection, so that, while the necessary number of suitable men may be detailed for duty with the Army Medical Corps, the needs of the civil population may not be disturbed more than is unavoidable.

The machinery for selecting medical officers for service with the Australian Army Medical Corps is similar to that created for the same purpose in Great Britain. A District Medical War Committee for each State will obtain full information in regard to all medical practitioners. Two registers will be compiled. The first will comprise the names of those practitioners who have acceded to the request of the Director-General, and have enrolled themselves voluntarily; the second will comprise the names of all other medical men within the six States. Some doubt appears to exist as to the process of selection. A careful consideration of the memorandum, however, reveals that the District Medical Committee will be required to consider the suitability or otherwise of every practitioner whose name is on either list. Pending a further proclamation, the selection can only be made from the list of those who have offered their services voluntarily. It will thus be seen that the utility of the District Medical Committees in selecting the proper men will be proportionate to the number of men who apply for commissions. If every man enrolled, this task could be carried out advantageously and without the infliction of hardships. It must be remembered that relatively few men will be selected for active service. The medical practitioner, who is given a commis-

sion, will not be called up unless and until his services are needed.

General Fetherston distinguishes three classes of practitioners. Men over 45 years of age are separated from the others because they will probably not be required for combatant service. We would call on senior practitioners to disregard this distinction and to apply for commissions with the "boys." The profession would then be divided into two classes. There would be the class composed of men who hearken to the call and apply for a commission forthwith. And there would be the class of those who prefer to let events take their course without active participation or whose financial responsibilities prevent them from volunteering. It is true that the men of the second class might be offered a commission when the time comes, but they should not rely on this. They may be called up for enlistment and service in the ranks for ordinary military duty under the compulsory provisions of the Defence Act. But, in any case, medical practitioners should bear in mind that by holding back they are rendering the work of equitable and judicious selection much more difficult.

CLEAN MEDICAL REGISTERS.

The Delegates of the Affiliated Medical Associations of New South Wales have recommended the Council of the New South Wales Branch of the British Medical Association to approach the State Government for the purpose of asking for legislation which would enable the Medical Board of New South Wales to remove from the Medical Register the names of practitioners who have been registered in virtue of a German or Austrian qualification, and who do not reside in the State, and also the names of those practitioners who have been interned as alien enemy subjects or otherwise. It will be remembered that the Medical Act of New South Wales was amended in 1915 by the introduction of a provision that a German or Austrian subject or any practitioner who possessed a German or Austrian qualification only cannot be registered, and of a further safeguard in the form of a "reciprocity" clause. The New South Wales Medical Register contains the names of many persons who no longer reside in the State, and it is eminently desirable to remove from the list the names of alien enemy subjects.

A wholesome purge has always found favour with physicians, and is especially beneficial when the individual has been ingesting more than is good for him. Similarly it is very salutary to cast overboard all unnecessary ballast and to exercise a strict control over all the material to be shipped, especially in times of stress. The present time is undoubtedly propitious for getting our house in order, and since the various legislative bodies can be relied on to support any sane proposal for the exclusion of undesirables, the opportunity should not be allowed to pass by unused. If an amendment of the law is necessary in New South Wales, it must be equally necessary in the other States. We have called attention a short time ago to the want of uniformity of the Medical Acts in the six States of Australia. The Federal Committee considered the proposal some time ago of standardizing the conditions governing the entrance to the medical profession in Australia. No doubt the most ideal plan would be to have a Federal Act with a Central Medical Board, but there are insuperable difficulties in the way at present. The alternative could serve as a preliminary move toward this ideal. It is that steps be taken in every State to induce the Government to introduce legislation with the object of regulating registration in accordance with the present requirements. There may be some difficulty in securing uniformity on all points, but much could be gained if all the States would adopt the following restrictions. Registrations should follow graduation in an Australian University; the next place should be given to registrable qualifications obtained in Great Britain, Ireland or a British possession, provided that the standard is not lower than that prescribed by the Australian Universities. The third class of practitioner who should be entitled to registration in the Commonwealth would be persons who are entitled to practise in a foreign country in which practitioners are entitled to be registered in virtue of an Australian degree, provided that the course of study and the standard of the test be not less

rigorous than that required in Australia. The alternative of the reciprocity arrangements might be the establishment of a State examination for foreign practitioners. In the next place, provision should be made for the removal of the names of undesirable practitioners, and for the exclusion from the registers of all alien enemy subjects. Recent legislation in Western Australia has rendered it a penal offence for anyone other than a registered medical practitioner to treat persons suffering from venereal diseases. The same prohibition has been suggested in other States. It would, therefore, be advisable to include in any Bill to amend the Medical Acts a clause making it a penal offence for an unregistered person to treat disease habitually and for gain. It is improbable that any considerable opposition would be raised to a measure containing these provisions, and if a Bill were passed through Parliament in each State we should have achieved something approaching uniformity.

CERTIFICATES UNDER THE WORKERS' COMPENSATION ACT, 1914.

The attention of the Council of the Victorian Branch of the British Medical Association has been directed to a risk which practitioners may run in giving information to the insuring company in regard to claims under the Workers' Compensation Act, 1914. The procedure in the case of an accident is as follows: A worker who meets with an accident must lodge a claim with his employer as soon as possible, but not later than four months after the accident. If the claim is admitted, compensation will be paid without further question. If the justice of the claim is in doubt, the certificate of a medical man may be required. In this case the State Accident Insurance Company may send the claimant to a "certifying medical practitioner," an officer appointed by the Governor-in-Council, or approved insurance companies may send him to private medical practitioners. If either the claimant or the insuring company is dissatisfied with the decision of the practitioner, as contained in the certificate, an application may be made to the County Court, and the claim will then be referred to a "medical referee," whose decision will be final. The certificates of the certifying medical practitioner, or of the private practitioner, are given to the insuring company, since the company causes the case to be tested. In the case of the medical referee, the reference may be from either party, and in any case the referee should give a copy of his certificate to both the insuring company and to the claimant. It may be that statements included in the certificates of the certifying medical practitioner, of the private practitioner appealed to by an approved insurance society or of the medical referee which may reflect on the morality or private habits of the claimant. It has been pointed out that damaging statements of this kind, more especially if they be wholly or in part irrevelant to the matter at issue, may form the ground for an action for damages for libel or defamation of character. Medical practitioners should, therefore, be on their guard, and when called upon to supply certificates under the Act should refrain from including any statement which is not essential, and should verify all facts which may have influenced them in advising that the claim is not a good one. It is improbable that a plea of privilege would be accepted in the event of an action for damages being started. The risk will no doubt be reduced if the practitioner remembers that a copy of the certificate should be given to the claimant, and if it is compiled with this knowledge in his mind.

THE LAUNCESTON GENERAL HOSPITAL.

In our issue of August 5, 1916 (pages 92-95) we called attention to the action of the Council of the Tasmanian Branch of the British Medical Association in seeking to remedy a defect in the administration and management of the Launceston General Hospital. Because we advocated the recognition of a hospital as a place where necessitous persons alone should receive medical treatment, we have been twitted that we are "hopelessly out of date in our conception of the function of modern hospitals." If "modern" means "Labour" we plead guilty to the soft impeachment, without a blush. This form of criticism, however, leaves us quite cold. The Chairman of the Board of Management of the Hospital has addressed a reply to our comments to the Chief Secretary, and this reply had been published in the daily press. We understand that a deputation from the Council of the Tasmanian Branch will wait on the Chief Secretary to discuss this question, and, consequently, it is unnecessary to enter fully into the whole matter at present. But since the Chairman of the Board has given evidence of a singularly convenient memory, it may be well to recall certain events. We stated that some years ago the Medical Superintendent was allowed to carry on private practice outside and to accept fees from indoor patients for operations performed in the institution. The Chairman states that this is a serious misstatement of the facts. He quotes Rule 65, according to which "the Medical Superintendent was not permitted to be concerned in any medical or surgical practice, or in any business than that of the hospital, except in consultation with any medical practitioners within the boundary of the city of Launceston." He also adds that it is not true that any medical officer has been allowed to accept fees from indoor patients. Has he forgotten the correspondence with the Chief Secretary on this matter, which was published in *The Daily Telegraph* of December 12, 1910, or does he pretend that the Board are not aware that this practice was indulged in? The

gentleman who held the position of Medical Superintendent at that time admitted that he operated on a certain patient in the dressing room of the hospital and that he charged him a fee of five guineas. The fee was divided between himself and a member of the honorary staff who was re-elected year by year, and who certainly did not avail himself of the usual privileges of an honorary surgeon to a hospital. The same officer admitted that he accepted a fee of £3 10s. for himself and a colleague for an operation performed in the hospital. Another patient made a declaration that she was charged a fee of one guinea by the Medical Superintendent, notwithstanding the fact that she came to the Hospital with an order from a Member of the Board of Management. It is always difficult to collect evidence of this nature. Still, some evidence was procured, and it is reasonable to assume that the practice obtained. The Board must have been aware of the facts, since there was a correspondence with the Chief Secretary on it, and also because four years ago the privilege of allowing the Medical Superintendent to meet the city men in consultation was withdrawn. This withdrawal followed on representations being made to the Board that private practice was being carried on by their officer.

The second point to which objection is taken by the Chairman is in connexion with the honorary staff. In this instance he again quotes rules of the Hospital, but it is common knowledge in Launceston that the honorary medical officers whom the Board are careful to elect and re-elect do not use the beds nominally placed at their disposal. From time to time an attempt has been made by the leading practitioners to obtain positions on the visiting staff. This attempt has been successful in a few instances, but the practitioners elected were subjected to such undignified and strange treatment that they were forced to resign their appointments. If, as the Chairman states, "the resident staff had to undertake virtually the whole of the work of the Hospital," it was because the Board insisted in electing men as honorary officers who "did not attempt even to treat or operate on the patients they themselves had sent in."

The only other comment which we propose to remark upon at present is that made in connexion with the system of electing an honorary staff of the leading practitioners of the city and appointing young practitioners as house surgeons and house physicians. The Chairman states that this method was tried some years ago, and was given up because the members of the honorary staff found themselves unable to attend to their duties. What a strange memory the Chairman has! This occurred, so we are informed, before the time of any of the medical men now practising in Launceston. At that time the Launceston practitioners were very frequently called into the country to attend to patients. There were very few doctors outside the city then. The conditions obtaining at present are quite different, and we maintain that a return to the time-honoured system would prove eminently successful. The retention of the present system is in the interests of one man only, and not in that of the public or of the profession.

Naval and Military.

The 222nd, 223rd, 224th, 225th, 226th and 227th casualty lists contain the names of 6,055 Australian soldiers. Of this number, 230 are reported to be ill in hospital and 91 to be prisoners of war. There are therefore 5,734 names of men killed in action, died of wounds or of other causes, wounded, injured and missing. Of those affected there were 136 officers, and of these only one was a medical man. Captain K. C. Godfrey is among the list of wounded.

On October 4, 1916, the 228th list of casualties was issued and contained the names of 770 members of the Australian Imperial Forces. A double list was issued on October 8 with 1,577 names, and a further double list (the 231st and 232nd), with 1,444 names. Among the 3,787 names there is only one of a medical officer. It is with great regret that we read the name of Captain J. L. Niven under the heading "died of other causes."

Among the last awards of Military Crosses there were three directed to members of the Australian Army Medical Corps. Captain Charles Cosgrove received the distinction for tending the wounded regardless of personal danger. Captain Keith Grievé was decorated in recognition of "the greatest coolness and courage." Owing to the battered condition of the front trenches, he was compelled to tend the wounded in the open. Captain Hugh Rayson, who received the third Military Cross, rendered first-aid under the heaviest shell fire, working day and night.

District Medical War Committees.

The following gentlemen have been appointed members of the District Medical War Committees for the six Australian Military Districts. It will be remembered that the Committees consist of the Principal Medical Officer, as President, two representatives from the Branch of the British Medical Association, one representative from the University in those districts in which there is a medical school attached to the University, and two representatives of the medical profession, nominated by the Commandant for the approval of the Military Board.

No. 1 Military District (Queensland).
Principal Medical Officer—Major A. M. McIntosh.
British Medical Association—Sir David Hardie; Colonel G. S. Jackson.
Medical Profession—Major J. Lockhart Gibson; Major H. J. Stewart.

No. 2 Military District (New South Wales).
Principal Medical Officer—Lieutenant-Colonal E. S. Stokes.
British Medical Association—Dr. R. H. Todd; Dr. Sinclair Gillies.
University—Professor Sir Thomas Anderson Stuart.
Medical Profession—Dr. MacCullock; Major J. Crawford Robertson.

No. 3 Military District (Victoria).
Principal Medical Officer—Lieutenant-Colonel G. Cuscaden.
British Medical Association—Mr. G. A. Syme, F.R.C.S.; Major W. R. Boyd.
University—Professor Sir Harry Allen.
Medical Profession—Dr. A. Jeffreys Wood; Dr. G. T. Howard.

No. 4 Military District (South Australia).
Principal Medical Officer—Major E. A. H. Russell.
British Medical Association—Lieutenant-Colonel A. M. Cudmore; Captain F. S. Hone.
University—Dr. J. C. Verco.
Medical Profession—Dr. A. F. A. Lynch.

No. 5 Military District (Western Australia).
Principal Medical Officer—Major A. E. Randle.
British Medical Association—Dr. R. C. Merryweather; Dr. C. W. T. Woods.
Medical Profession—Major W. Trethowan; Captain A. Atkinson.

No. 6 Military District (Tasmania).
Principal Medical Officer—Major D. H. E. Lines.
British Medical Association—Dr. G. H. Hogg; Dr. G. E. Clemons.
Medical Profession—Major R. G. Scott; Dr. A. E. Hayward.

Obituary.

HAROLD FREDERICK HOOD PLANT.

In our issue of September 9, 1916 (p. 211) we recorded that the name of Captain H. F. H. Plant appeared in the 204th list of casualties among Australian soldiers under the heading of wounded. A report had been received shortly before that he had been killed in action, but this was promptly contradicted. Unfortunately the truth of the ill news that travels apace has now been confirmed. Our respected colleague was killed by a shell on the night of August 8, 1916.

Harold Frederick Hood Plant was born at Charters Towers, Queensland, in 1888. He received his scholastic education at the Brisbane Grammar School. While he made his mark among his fellows in class work, he also distinguished himself in the world of sport, and contributed to the reputation of his school by being a member of the team when the Empire Cup was secured for the second time. After leaving school he entered upon his medical studies at Sydney, and obtained the degrees of M.B., Ch.M. at the Sydney University in 1913. His first appointment was that of one of the resident medical officers at the Brisbane General Hospital. Later he was appointed Resident Medical Officer at the Children's Hospital in Brisbane. Soon after the outbreak of war he volunteered for service with the Australian Army Medical Corps, and left Brisbane with the 1st Australian Hospital on November 21, 1914. For some time he was attached to this Hospital at Heliopolis, and later was placed in charge at Abassieh. From this place he was drafted to Gallipoli as Regimental Surgeon of the 18th Battalion, 5th Brigade. He was selected to remain behind with any men who might be too badly wounded to be removed on board the transports during the process of evacuation, but fortunately his services for this purpose were not required. He was then transferred to the 24th Battalion, 6th Brigade, on his return to Egypt, and joined this unit at Ismalia, and in the desert. His unit was then called to France, and he accompanied them. His service in the field was probably longer than that of any other medical officer of the Australian Imperial Forces. He served in France with conspicuous distinction, and earned honourable mention by his Brigadier for his excellent work at the front. The following is an extract from the 1st Anzac Routine Orders, dated August 14, 1916:—

275. Gallantry.

> The Army Corps Commander wishes to express his appreciation of the very gallant conduct of Captain Harold Frederick Hood Plant, A.A.M.C., attached to the 24th Battalion, A.I.F., who, during the recent fighting at Pozières, distinguished himself by his unremitting efforts on behalf of the wounded, no less than by his cheerful gallantry in action. The example of endurance and fortitude he set is acknowledged to have had the happiest influence on the Battalion to which he was attached.
>
> The Corps Commander very much regrets that this gallant officer was later killed in action.

The loss of so valuable an officer to the country is great. He was a true Anzac! The loss to the profession can scarcely be estimated, since his life, so well begun, would certainly have been of high service to his fellow-men, had he been spared. The loss to those who knew him is immeasurable.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

A meeting of the Faculty of Medicine of the University of Sydney was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on October 9, 1916. Sir Thomas Anderson Stuart, Dean of the Faculty, presided. Surgeon-General R. H. Fetherston, Director of Medical Services, was present at the invitation of the Faculty.

Sir Thomas Anderson Stuart said that the Faculty had met the requirements of the Commonwealth authorities in regard to the supply of recently-qualified medical men by accelerating the speed with which the various courses of instruction for senior students followed one another. No omissions had been made from the curriculum, but vacations had been given up and no holidays taken. The Faculty had asked Surgeon-General Fetherston to be present, so that the members might know whether it was necessary to continue the acceleration of the classes.

Surgeon-General R. H. Fetherston said that the men who had completed the modified courses had done wonderfully well. Sir Alfred Keogh had expressed to him his high appreciation of the young Australian graduate, who rose equal to any emergency and was prepared to do anything. He had added that every commander had asked for a few of them for his command. General Fetherston would ask for no better men for certain purposes. He thought that young men were needed in numbers, and that they should be used rather than the medical men already in general practice. He needed an organization of medical men under war conditions rather than for the war. It was needful to bear in mind the medical necessities of the civil population. The general public could be better served by the general practitioner than by the newly-qualified graduate. General Fetherston outlined the needs of his medical service, which required a number of medical men. He would like to obtain as many graduates who had just qualified as he could. Sydney University had set an example to the other Universities in Australia by being the first to grasp the significance of the emergency that had arisen and to accelerate its course of instruction.

Professor D. A. Welsh pointed out that the sequence of the different classes could be arranged better when the acceleration was commenced sufficiently early. By starting early enough the same amount of time was allowed for clinical study in the hospitals as in the full-time curriculum. This was being done with the present fifth-year students.

Sir Herbert Maitland hoped that every graduate would have some months' experience in a General Hospital before taking an active service. He thought that the training as a resident medical officer was of the utmost importance to the future medical practitioner.

Dr. G. A. Abbott hoped that the Faculty would decide to accelerate the courses of those students who would graduate in March, 1919, so that they should sit for their examination in August, 1918. It was a pity to call on general practitioners of some years' standing to do the work which could be so well done by these younger men.

Dr. R. H. Todd said that much hardship would be entailed on the general practitioners if they were called upon to fill the vacancies in the A.A.M.C. which might be filled by younger men. He agreed that hospital experience was needed. He would suggest that the Faculty should seize the opportunity to make it compulsory for the degree in medicine to serve for six months in a hospital after passing the final examinations.

Sir Thomas Anderson Stuart summed up the discussion and moved that the Faculty decide to accelerate the courses for another year, so that students should qualify in August, 1918, instead of March, 1919.

The motion was carried unanimously.

Surgeon-General Fetherston then explained that, under the compulsory clauses of the Defence Act, medical students were liable to render continuous military service. It had, however, been decided to grant certificates of exemption to those medical students who had passed the Second-Year Examination or who had completed the courses of instruction of the second year.

Dr. W. Horner Nelson, of Greenbushes, Western Australia, has commenced practice at 58 Hay Street, Subiaco.

The Council of the New Zealand Branch of the British Medical Association, at its quarterly meeting, held September 14, 1916, passed the following resolution:—

> That the New Zealand Branch will do all in its power to support the efforts of the New South Wales Branch to resist State interference in the recognized system of medical practice, and to preserve the rights of private medical practitioners.

Abstracts from Current Medical Literature.

PATHOLOGY.

(136) Pathological Anatomy of the Lungs in Beri-beri.

Y. Matsuoka has made a series of accurate anatomical histological investigations of the lungs in cases of beri-beri (*Journ. of Pathology and Bacteriology*, October, 1915). The object of this study has been to elucidate certain aspects of the pathology of the lungs, especially the cause of the dilatation and hypertrophy of the right chamber of the heart and the reason of the change in the volume capacity of the lungs. The lungs were divided into ten or twenty parts, and each part carefully examined. As a control, the lungs from thirty cases with somewhat similar changes were subjected to the same methods. Œdema of the lungs is present on both sides in all cases. The author deduces that this œdema is due to venous congestion, since the œdema is always associated with congestion, since the dropsical fluid is only slightly red in colour, since fibrinous threads are absent from the œdematous fluid, and since loosened alveolar epithelium, infiltrated leucocytes and emigrated red corpuscles are few in numbers in the alveoli and alveolar walls. This œdema is distinct from that occurring during the agony of death, and differs in being diffuse rather than localized and hypostatic. The volume of the lungs is equally diminished throughout, so that the margins remain sharp. The lungs are collapsed in about 60% of the cases. The colour is bluish-red. The lungs are congested, but the congestion is not so great or so chronic as in valvular lesions of the heart. Occasional patches of emphysema are observed. The volume of the lungs is not only lessened but "diffusely" lessened. This type of lung is peculiar, and is known to occur also in hyperscoliosis of the vertebral column. The author is of opinion that the ascent of the diaphragm secondary to paresis is not sufficient to account for the condition. He believes that the occurrence of hydrothorax is the most potent factor in its causation. Multiple pleural and sub-pleural ecchymoses are often present, and are caused in the suffocative state of beri-beri. Congestion of the lungs and congestion-œdema work hand-in-hand with collapse, to set up the dilatation and hypertrophy of the right side of the heart.

(137) Trench Frost-bite.

J. Lorrain Smith, J. Ritchie and J. Dawson have completed an inquiry of a clinical and experimental character on the pathology of trench frost-bite (*Journ. of Pathology and Bacteriology*, October, 1915). The investigation has included the examination of a number of soldiers who were invalided from the front suffering from the affection and the experimental subjection of rabbits to conditions similar to those existing in the trenches. The experimental study aimed at producing in animals the lesions noted in man. It appears from these experiments that the essential change in the condition of frost-bite in the feet, exposed to cold mud, consists in damage to the blood-vessels. At first the blood-vessels are constricted. When the circulation is restored to normal, the swelling of the feet results from the damaged state of the walls of the vessels. This damage is apparent in the swollen endothelial lining of vessels of all kinds, and, also, in the vacuolations of the plain muscle fibres of the arterial wall. An excessive transudation of fluid occurs into the tissues, and, in some cases, the vessels rupture and hæmorrhage follows. The vitality of the cells of the tissues is lowered, so that fibrin is formed in the exuded fluid, while thrombi are absent from the blood-vessels. In consequence of the injury to the tissues, leucocytes and other phagocytic cells infiltrate these structures. The injury to the vascular walls and tissues is partly due to the cold and partly due to necrobiotic changes resulting from the vascular constriction and the sluggish circulation. The necrobiotic changes are observed in muscles, but not in nerves which are somewhat resistant. The effects are similar whether the feet are exposed to moderate wet cold for a long time or to a very low temperature for a short time. The relatively greater effect of wet cold as compared with dry cold is due to the fact that water is a much better conductor than air. A close parallelism exists between the clinical observations and the experimental results. The swelling and redness of the feet are the effects of injuries to the vascular walls. The unusual resistance of the œdema to pressure is produced by the semi-solid fibrinous deposit. The slighter degrees of blackening of the skin are due to diffuse interstitial hæmorrhages. The supervention of ulceration is due to cellular necrobiosis, which, if severe in degree, may proceed to gross necrosis. The limitation of the nervous symptoms has its explanation in the absence of definite changes in the nerves. The authors make some comment on the part played by pressure and constriction in predisposing to frost-bite. The habit of wearing two pairs of socks and the use of puttees favour defective circulation. Frost-bite usually appears first on those parts where corns and callosities are usually seen. Attention is also directed to the harmful influence of heat applied during the restoration of the circulation. Warm water always leads to congestion, and its use may lead to the rupture of damaged vessels.

(138) Lipomatosis.

Y. Matsuoka has examined the deposition of fat in material from the autopsies of seventy persons (*Journ. of Pathology and Bacteriology*, October, 1915). The tissues have been taken from forty-eight male and twenty-two female subjects, whose ages varied from two months to eighty-two years. Eleven of the patients were examples of general obesity. The human material has been compared with that from rabbits, guinea-pigs and rats. An organ is said to suffer from lipomatosis when it shows an abnormal increase of adipose cells. The increase may be looked on as physiological until the amount becomes pathological by mere excess or the fat appears in places where its presence causes atrophy and degeneration of parts of the organ in which it is situated. He groups the cases of lipomatosis into two classes. In the first class there is invasion of the affected organ by adipose cells from the surrounding tissues, while there is also some proliferation of fat cells in the interstices of the affected organ. The organs in patients with general obesity show this type of deposition of fat. In the second group a primary atrophy of the parenchymatous tissue of the organ has been followed by fibrosis. The deposit of fat takes place into the connective tissue cells of the newly-formed fibrotic tissues. The process may be described as replacement-lipomatosis following replacement-fibrosis. The investigator discusses the microscopical appearances of the different organs when they are the seat of lipomatosis. He gives an account of the invasion of fat into the heart, skeletal muscles, muscular walls of the intestines and urinary bladder, pancreas, lymphoid tissue of the *appendices epiploicæ*, mammary gland, bone-marrow, thyroid gland, parathyroid glands and the kidneys. In this group he notes that the invasion is prevented by a strong fascia or thick capsule, and that it takes place readily in places physiologically rich in fat, or in organs with a thin coating of fat, or in muscles of all kinds, and in lymphatic or lymphoid organs. In the case of the heart this local lipomatosis does not disappear with emaciation. The degree of invasion of the myocardium is parallel to the thickness of the epicardial layer of fat. In the second group he describes the changes seen in the heart, skeletal muscle, appendix, lymph glands, thymus, kidneys and spleen. The author notes the frequent presence of mitotic figures in the parenchymatous atrophied tissues, and surmises that regeneration is following the atrophy of the parenchyma. This change is prominent in the heart and in skeletal muscle. The author emphasizes certain differential characters of the two groups. In the first group the increase in fat-cells is primary, and the atrophy of the parenchyma is secondary. The organs frequently appear to be hypertrophied when they are the seat of invasion lipomatosis, but are lessened in size in replacement-lipomatosis. In the second group lipomatosis accompanies fibrosis, while in the first group there is destruction of fibrous tissue. The author concludes that the causes and seats of lipomatosis are other than those of fatty degeneration and that, in most cases, lipomatosis occurs without any fatty degeneration.

(139) Production of Amyloid Disease.

C. H. Bailey has produced the deposition of amyloid in the spleen, kidneys and liver of rabbits by repeated intravenous injections with *Bacillus coli communior* (*Journal Exper. Medicine*, June, 1916). A condition of chronic

nephritis has been also caused by these injections. The injections have been given every three or four days, in doses of 1 c.cm. of broth cultures of living bacilli into the veins of the ear. Fifteen rabbits have been used. The early experiments have lasted 21 days, and the later experiments up to 145 days. No formation of amyloid has been noted in any animal killed before the eighty-eighth day. Seven rabbits have been killed prior to this period, and none have developed amyloid changes. Eight have been killed at intervals beyond this time, up to one hundred and forty-five days. All have shown amyloid development. Complete autopsies have been made on all the rabbits. Only one of the rabbits that developed the amyloid change has contained a suppurative lesion. All the eight rabbits have shown the deposit of amyloid in the spleen, six of them in the kidneys and three in the livers. The kidneys in the eight rabbits which have developed some amyloid deposition, have shown subacute and chronic glomerulitis, parenchymatous degeneration, some interstitial infiltration, with round cells and a slight cellular proliferation of the connective tissue.

PÆDIATRICS.

(140) Acidosis Occurring With Diarrhœa.

During the course of attacks in infants of severe diarrhœa, not of the ileo-colitis type, alterations in the respiration are not infrequently encountered. The usual abdominal type of respiration of the young child is succeeded by one that is both costal and abdominal. The most striking feature is the amplitude of the respirations and the distinct effort with which they are accomplished. They are heaving, the thorax being often greatly elevated and depressed, and the accessory muscles of respiration brought into play. There is no evidence of obstruction and no cyanosis. The frequency of respiration is usually increased, but not greatly so. Sometimes there is a greater or less alteration of the depth of the individual respirations, so that a modified Cheyne-Stokes' type results, but in general the excursion of the thorax and abdomen are nearly the same with successive respirations. This increased pulmonary ventilation or hyperpnœa may go on uninterruptedly for many hours. Eventually, in fatal cases, the respirations become feebler and feebler, with only occasional deep gasps, and finally they cease altogether. It is as if the respiratory centre were exhausted by the exertions undergone. Howland and Marriott (*Amer. Journ. of Diseases of Children*, May, 1916) consider that this hyperpnœa in many cases of severe diarrhœa is associated with and dependent on the presence of acidosis, an opinion borne out by the results of their tests. In infants with hyperpnœa and diarrhœa the carbon-dioxide tension in the alveolar air was found to be lowered, the hydrogen ion concentration of the serum greatly increased, and the alkali reserve of the blood markedly diminished. The oxygen-combining power of the blood was also lowered. All these conditions occur where there is a state of acidosis. In their cases the authors were able to test the results of treatment aimed at the acidosis, and they consider that, where the acidosis is proved to be present, either by a laboratory test or by the presence of hyperpnœa, the treatment must be energetic. Sodium bicarbonate must be given by the mouth, by rectum, subcutaneously or intravenously, the last being the method of choice. The solution used should contain 4% of the alkali and from 75 to 100 c.cm. should be given and repeated in three hours if the hyperpnœa does not cease. Then the soda should be administered by mouth in doses of 1 to 3 grammes every two to three hours until the urine becomes alkaline. Where subcutaneous injection is used certain precautions must be taken to prevent tissue necrosis. The solution (2% to 4%), when sterilized by heat, becomes intensely irritating by transformation of the bicarbonate into the carbonate, and this must be rectified by bubbling carbon-dioxide through the cold solution, to which a few drops of phenolphthalein have been added, until it becomes colourless. From 100 to 300 c.cm. may be injected very slowly. The acidosis is not due to the presence of acetone bodies. It has not been demonstrated that it is due to loss of base. It is probable that it is due to deficient excretion of acid phosphate by the kidneys.

(141) The Localization of the Diphtheria Bacillus in the Upper Respiratory Tract.

Owing to the frequency with which swabbings taken from various portions of the nose and naso-pharynx gave conflicting reports as to the presence of the diphtheria organism, Walthall (*Amer. Journ. of Diseases of Children*, August, 1916) decided to test separately each tonsil, faucial pillar, nostril, etc. From the frequent examination of eight cases of diphtheria he concludes that (1) all parts of the mucous membrane of the upper respiratory tract must be touched in making satisfactory general culture; (2) the pharynx may be negative for the bacilli, but positive in the nose or larynx. One tonsil alone may give a positive culture. Nose-bleeding and hoarseness should direct attention to the nose or larynx. (3) Sterile cotton swabs are found to be most adaptable for getting the culture material from all parts of the tract, or second in preference for culture a platinum loop, of which the wire must be quite stiff and heavy, to prevent bending. The wire, however, can only be used in taking cultures from tonsils, faucial pillars, posterior pharyngeal walls and lateral bands, as there is risk of trauma to the mucous membrane in the case of the nose and larynx. (4) Several complete swabbings are necessary in each case before negative findings are to be allowed in a convalescent. (5) The peculiar tendency of the organism to remain localized to one of several areas in certain cases has an important influence in deciding on the resulting medical or surgical treatment.

(142) Measles.

Wilson (*Archives of Pediatrics*, April, 1916) points out that authorities differ greatly in their statements as to the average mortality of measles, and that, to account for this, there is probably some as yet undetermined factor, entirely independent of age and unfavourable surroundings, which enters into the situation and makes the disease now a mild one, with easy recovery, and now a virulent one, with a high incidence of complications and death. That some undetermined factor is at work is shown not alone in its variable mortality rate, but also in its incidence rate. From personal observation of the patients and on examination of the histories of over 2,000 measles cases, the author draws the following conclusion: (1) Cross-infection, especially that of diphtheria, is the most serious event that can occur in measles; (2) suppurative otitis media, though the most frequent complication of measles, is not of grave prognostic import when properly treated; (3) broncho-pneumonia complicates about 10% of all measles cases, being but little influenced by weather conditions in the frequency of its occurrence or its fatality; (4) the fatality of measles complicated by broncho-pneumnia is 58%, but this fatality varies in an exceedingly erratic manner and without marked relation to the total case fatality of measles; (5) the incidence rate of broncho-pneumonia as a complication, rather than its case mortality, appears to be an index to the severity of any particular outbreak of the disease.

(143) Diphtheria in the First Year of Life.

Several explanations of the rarity of diphtheria in the first year of life have been offered, *viz.*, immunity acquired *in utero*, antitoxin transmitted through the milk, acid reaction of the secretions in the infant's buccal cavity, greater care and comparative isolation, which the nursling as a rule enjoys. Of 2,600 consecutive cases of diphtheria, Rolleston (*Amer. Journ. of Diseases of Children*, July, 1916) found only twenty or less than 1% to be in the first year of life. Especially noticeable in these was the high percentage with nasal involvement, though the disease was by no means confined to the nose. Cutaneous diphtheria was also of unusual frequency as compared with older children (15% to 1.1%). Three cases showed unmistakable clinical signs of congenital syphilis, and death in two of these was probably due to the syphilis and not to the diphtheria. Paralysis was relatively rare (10% to 20%), occurring only in two cases of severe faucial diphtheria. Broncho-pneumonia occurred in six of the twenty cases (30% to 1.2%) with a fatal termination in five. Congenital syphilis is probably an important predisposing cause of diphtheria in infants, and while the morbidity is low the mortality is high.

British Medical Association News.

SCIENTIFIC.

A clinical meeting of the New South Wales Branch was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on September 8, 1916, Dr. Sinclair Gillies, the President, in the chair.

Dr. Ralph Worrall read the notes of a case of multiple abscesses of the kidney originating in obstetric trauma, and exhibited the pathological specimens. The notes of this case are published on page 317.

Dr. R. Gordon Craig congratulated Dr. Worrall on the excellent result which he had obtained.

Dr. J. G. Edwards exhibited some skiagrams taken from some cases of syndactylism. Three of these skiagrams, and the remarks made by Dr. Edwards, are reproduced on page 319.

Dr. W. F. Litchfield spoke of a series of cases of polydactylism which had occurred in a family under his care. All the patients affected with this condition were boys, and although the deformity is frequently regarded as congenital, no similar defects had occurred in this family, as far as he had been able to trace. The first baby had been born with six fingers on each hand. The second also had six fingers on each hand, while the third had six fingers on each hand and six toes on each foot, as well as an additional rudimentary finger. The defect was associated with a general slackness of the muscular system.

Dr. S. Harry Harris read the notes of a case of early renal tuberculosis, in which nephrectomy had been performed. *Bacillus coli communis* was found in the urine, but no tubercle bacilli. He exhibited the removed organ and the pyelogram. The report of this case will be published in a subsequent issue.

Dr. C. Norman Paul read the notes of a case of *xanthoma diabeticum* (see page 320).

Dr. S. Sheldon demonstrated a specimen of the brain of a young woman, aged 23 years, who had died of cerebral hæmorrhage. He also referred to two other cases in which the same condition occurred in young women. The patient, A.E.O., was said to have fallen in a skating-rink three years previously. There were no symptoms referable to this accident for a year. At that time she became paralysed on the left side. She came to Sydney for treatment, but the paralysis of the left arm did not diminish. She died suddenly on August 26, 1916. The post-mortem examination revealed a hæmorrhage of the capacity of about three ounces in the right lenticulo-striate region. The blood had not escaped to the surface. The covering of the ventricle was practically intact. The specimen was sent to the Microbiological Department for microscopical examination, but no traces of a new growth were discovered.

The only record at the Lewisham Hospital regarding this patient was that she had attended at the Out-Patient Department, and that the condition had been diagnosed as hysteria and treated accordingly.

This case had recalled to Dr. Sheldon's memory two others which had occurred within a few days of one another.

E.W., aged 24 years, a domestic servant from the Solomon Islands, was of mixed blood, probably a half-caste. She complained on January 15, 1910, of the heat, and appeared to become very distressed in her breathing. She died within a short time. Post-mortem, a hæmorrhage, containing about 1½ ounces of blood, was discovered in the lenticulo-striate region. The blood had ploughed its way through the brain tissue. No other abnormality was discovered at the examination.

B.M.M., aged 21 years, employed in home duties, was apparently in her normal good health on January 18, 1910. She had a hearty meal, vomited about three hours later, and then died suddenly. No further history was obtained of this case, although it was ascertained that the patient had been attending the hospital for some months previously. At the post-mortem examination it was found that the anterior aspect of the frontal lobe of the brain had been ploughed through by about three ounces of blood clot and serum. In the pericardium there were six ounces of clear fluid. The heart muscle was soft and the cavities somewhat dilated. There were vegetations on the mitral valve. The spleen was three times its ordinary size, and, on section, a sago-like condition was discerned. She was *virgo intacta*.

Dr. J. B. Cleland was to have demonstrated on the screen a large series of microscopical specimens from gynæcological cases. Unfortunately, the arc lamp of the balopticon, which the Branch had recently acquired, fused and became useless. The speaker thereupon read extracts from a report on sections of tissues for microscopical examination, which will appear in due course as part of the report of the Public Health Department of New South Wales.

He pointed out that 167 specimens derived from the uterus had been examined. Evidence of pregnancy was obtained in 31 specimens, but in no instance was chorion-epithelioma met with. There were 18 specimens of fibroma. The material in 118 cases was sent for examination on account of suspected malignant disease or retention of placental remains. Malignancy was met with 13 times. Malignancy was present in tissue derived from the *cervix uteri* in one out of every four cases, while it was determined in the uterine scrapings in about 10% of the specimens. In 12 of the 13 specimens of malignant growth, a tubular arrangement was recognizable. The stroma, as a rule, was a loose, cellular, fibrous tissue. In the next place, Dr. Cleland dealt with the uterine mucosa. The material received was either obtained by curettage or at the autopsy *in vivo* or *post mortem*. The series included 80 scrapings. In 3 the type was practically normal, in 4 there was a sprouting condition of the lumen of the tubules, probably indicating menstrual changes, in 12 there was a condition described as *endometritis glandularis hypertrophica*, in 28 the same condition was intensified by the presence of œdema and at times blood extravasation, in one *endometritis glandularis hyperplastica* was diagnosed, in two there was *endometritis interstitialis*, in one case *endometritis polyposa* was present and in a few specimens the material was either too sparse to admit of an accurate diagnosis, or had become useless through drying, etc. The speaker dealt briefly with the histological characters of the various types, and gave short accounts of the clinical and pathological histories of the individual cases.

In referring to the cases of fibro-myoma of the uterus, he pointed out that the material was submitted for examination on account of some unusual appearance, but that sarcomatous degeneration was not detected once. He then turned his attention to conditions associated with pregnancy. Chorionic villi or decidual cells, indicating a previous pregnancy, were met with 25 times out of 31 specimens. One specimen consisted of an early ovum, of the size of a walnut, from which the fœtus itself had disappeared. In three cases hydatid mole was recognizeed, and in a fourth case, scapings were examined after the expulsion of a hydatiform mole. Microscopically, the material proved to consist of dilated glands in an œdematous stroma, with round cell and polymorphonuclear infiltration. One specimen of chorionic villi and decidual cells, without any signs of invasion of the uterine wall by placental tissue, was submitted on account of the suspicion of *deciduoma malignum*.

The next group of cases dealt with was that of malignant disease of the *cervix uteri*. There were 78 instances of these conditions. In the majority the growth was more or less typically squamous epithelioma. Dr. Cleland spoke of the variation in the appearance of these tumours, and maintained that it was rare to find two cases exactly alike. In some instances there were more or less rounded or lobed masses, with crowding of the peripheral cells, lending to the mass an appearance of dark edging. Keratinization of the central cells was seen. One tumour was similar in appearance to a scirrhous carcinoma of the breast. In another the general appearance was that of a tubular carcinoma, the lining cells being small epithelial cells, arranged in several layers. The stroma at times was fibrous in character, and at the other extreme it consisted of numerous cells, especially plasma cells. The vascular arrangement and the general scaffolding also varied considerably.

Another series of specimens derived from the vagina and vulva was described. There were sixteen specimens

in this group, including instances of epithelioma, fibroma and hypertrophy. Dr. Cleland also described the material derived from the vagina by exfoliation after the use of certain pessaries containing alum. This condition has been dealt with in the *British Medical Journal* and also in *The Medical Journal of Australia*. In the last place, he spoke briefly of 28 ovarian specimens, including five of fibrosis and microcysts, one of an ovarian abscess, four of *corpora lutea*, three of fibroma, five of cyst adenoma, one of dermoid cyst containing cerebral substance, one of carcinoma, one of teratoma and one, an ovary in an inguinal hernial sac.

Dr. Cleland made the suggestion that, when members read reports of cases in which a pathological specimen was described, a microscopical section should be sent to the Editor of the *Journal*. These sections could be kept in cabinets and be numbered, so that a permanent record of the microscopical appearances of every histological specimen described in the *Journal* might be kept, and members could have an opportunity of examining them.

Dr. Sydney Jamieson pointed out that Dr. Cleland had made no mention of a condition of the uterine mucosa with small cell infiltration and with increase in the size of the follicles. This condition was frequently associated with arterio-sclerotic changes. The uterus was usually found in cases of this kind to be very friable. He mentioned that one section which had been demonstrated reminded him of a condition described by Cullen as *adeno-myoma diffusa*. The specimen was labelled cylindrical epithelioma.

Dr. Ralph Worrall also referred to the arterio-sclerotic cases. Macroscopically the organ looked as if it were hard, but in reality it was extremely soft, and the curette was liable to perforate it on the slightest provocation. He maintained that this accident was of no importance, provided that it was recognized. The non-recognition of perforation and not the perforation itself constituted the danger. He referred to a medico-legal case in which the question of the significance of rupture of the uterus was raised. This case illustrated the necessity of the recognition of the injury to the uterus. Dr. Worrall considered that the industry in the preparation and classification of these gynæcological specimens and the marshalling of the facts determined from the examination of the specimens were most praiseworthy. He was sure that this work would be of use to gynæcologists. He agreed with Dr. Cleland that it was not sufficient to send small scrapings to the pathologist. These pieces were too small to base an opinion on, and confusion often resulted. He was of opinion that in many of the cases spoken of by Dr. Cleland it was unnecessary to seek the advice of a pathologist. He disapproved strongly of curetting for hæmorrhage after the menopause. It was likely to disseminate the disease. When there was repeated hæmorrhage after the menopause it was safer to remove the uterus without attempting to get a pathological specimen. He referred to the classical lectures of Mathews Duncan, in which this matter had been dealt with emphatically.

Dr. W. F. Litchfield agreed with Dr. Cleland that it was desirable that the examination of pathological specimens should be entrusted to men trained to the work. He held it to be unwise to accept the opinion of inexperienced men, even if the opinion were dogmatic. He spoke of the advisability of an affiliation between the Pathological Club of Sydney and the New South Wales Branch of the British Medical Association.

Dr. Gordon Craig approved of Dr. Cleland's suggestion of the collection of microscopical specimens. He considered that there was a tendency to neglect the histological examination of tumours. His custom had been to cut every tumour met with in his practice, and to examine the sections himself. In 90% of tumours it was quite easy to distinguish between malignant and non-malignant growths. Dr. Gordon Craig also spoke of the advisability of paying great attention to the macroscopical appearance of tumours.

In discussing the non-malignant gynæcological processes, Dr. W. Chenhall advocated a thorough investigation, to determine the local or distant origin of endometritis and other inflammatory affections. He usually proceeded by a process of elimination or exclusion. Apart from changes in the circulatory system, malpositions of the uterus should be taken into consideration. In reference to malignant disease, he felt convinced that the disease was increasing, and that the increase was a progressive one. The importance of early diagnosis could not be exaggerated, and in this the gynæcologist obtained valuable aid from the pathologist. He cited a case in which a very early malignant growth was detected by the careful examination by a surgeon in a woman who sought treatment for an injury received from a fall.

Dr. A. Aspinall asked practitioners to label the tissues submitted for examination with care. More accurate information would be obtained if the pathologist were able to ascertain what glands had been sent for examination.

Dr. Cleland replied briefly. He pointed out the necessity of making macro- as well as microscopical examination of tumours, and of re-examining specimens if necessary. He was never in a hurry to arrive at a diagnosis in a difficult case.

MEDICO-POLITICAL.

A meeting of the Council of the Victorian Branch was held at the Medical Society Hall, East Melbourne, on September 14, 1916, Dr. A. V. M. Anderson, the President, in the chair.

The Council dealt with certain cases from the point of view of the protection of the practices of members who were absent on military duty. It was decided to establish a roll of honour of those medical practitioners who had fallen while on active service. The roll would include all Victorian medical practitioners, whether they were members of the Branch or not.

It was decided to send letters of congratulation to Dr. Maudsley and Dr. Ryan on the occasion of these gentlemen having had the distinction of Commander of the Bath conferred on them for distinguished military service.

It was also resolved to entertain the Editor of *The Medical Journal of Australia* at an informal dinner during his visit to Melbourne, and to take the opportunity of discussing with him matters connected with the Branch and with the proposed military orthopædic service. A sub-committee, consisting of Drs. R. L. McAdam, W. Kent Hughes and A. L. Kenny, was appointed to make enquiries in regard to the establishment of an Orthopædic Institute for returned soldiers in Australia, and to report to the next meeting of the Council.

The Ethical Committee was asked to consider what steps could be taken with the object of preventing the lay press from publishing objectionable notices dealing with the attendance by members of the medical profession on prominent persons and with similar matters. It was held that the expressed wishes of the majority of the members of the profession in this connexion had not been respected.

A meeting of the Council of the Victorian Branch was held at the Medical Society Hall, East Melbourne, on September 27, 1916, Dr. A. V. M. Anderson, the President, in the chair.

The Chairman extended a welcome to Dr. R. R. Stawell, who attended the Council meeting for the first time since his re-election on his return from service with the Australian Army Medical Corps abroad.

A communication from the Ballarat Division was read, in which the Council was informed that unqualified persons could treat notifiable diseases, such as diphtheria, but were not compelled to notify cases of these diseases. According to the provisions of the Health Act, only legally qualified medical practitioners were required to notify these diseases. It was resolved to wait on the Minister of Public Health for the purpose of pointing out the danger to the health of the community if such a practice were allowed to continue.

The Legislative Sub-Committee submitted a report concerning the progress of the Venereal Diseases Bill through the Lower House of the State Parliament. It was pointed out that certain amendments had been carried, which were deemed to be prejudicial to the interests of the medical profession. It was resolved that a special meeting of the Council should be held on October 2, 1916, and that a report should be presented to the meeting of the Branch on October 4, 1916.

The Honorary Secretary reported that the Principal Medical Officer had intimated to him that he would welcome any scheme that would lead to the improvement of the condition of soldiers who had been crippled in the service of their country. The Sub-Committee appointed to consider a scheme for an Orthopædic Service was instructed to make further investigations, to draw up a comprehensive scheme, and to take evidence necessary to ensure the greatest effi-

ciency. It was resolved that the Sub-Committee have power of co-option and that clerical assistance be employed if required.

Dr. L. S. Latham tendered his resignation as representative of the Branch on the Federal Committee. Dr. G. A. Syme was elected to the vacant position.

In regard to the formation of a District Medical Committee, dealt with by the Director-General of Medical Services in his memorandum on the organization of the medical profession of Australia to meet the requirements under war conditions (see *The Medical Journal of Australia*, October 7, 1916, p. 306) the Council had been requested to nominate two representatives of the Victorian Branch. The Council nominated Drs. W. R. Boyd and Dr. G. A. Syme.

The Council resolved that it would be of convenience to the members of the Branch if the Secretary were appointed a Justice of the Peace. Steps had been taken to carry this resolution into effect.

It was announced that Dr. R. O. Douglas would demonstrate at the meeting of the Branch on October 4, 1916, a case of hydrocephalus with recovery following operation. Dr. H. Douglas Stephens, Dr. R. R. Stawell and Dr. W. Kent Hughes would read papers on anterior poliomyelitis.

The following gentlemen were elected members of the Branch:—

Dr. Stewart Macky, 80 Swanston Street, Melbourne.
Dr. Frank Elliot Trenoweth True, Malvern.
Dr. Howard Woodruff Lording, Women's Hospital, Carlton.
Dr. Harold Clive Disher, Women's Hospital, Carlton.
Dr. Arthur Poole Lawrence, Hospital, Geelong.
Dr. William Louther Armstrong, Alfred Hospital, Prahran.
Dr. Harris Mendelsohn, Alfred Hospital, Prahran.
Dr. Mitchell Henry O'Sullivan, Alfred Hospital, Prahran.

Public Health.

THE HEALTH OF NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, during the week ending September 23, 1916:—

	Metropolitan Combined District. Cs.	Dths.	Hunter River Combined District. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Enteric Fever	3	0	0	0	1	0	4	0
Scarlatina	63	2	1	0	32	1	96	3
Diphtheria	53	7	5	0	39	0	97	7
C'bro-Sp'l Menin.	2	1	0	0	5	0	7	1
Pul. Tuberculosis	33	13	1	0	†		34	13

† Notifiable only in the Metropolitan and Hunter River Districts.

The following notifications have been received by the Department of Public Health, New South Wales, during the week ending September 30, 1916:—

	Metropolitan Combined District. Cs.	Dths.	Hunter River Combined District. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Enteric Fever	1	0	0	0	6	1	7	1
Scarlatina	40	0	13	0	22	0	75	0
Diphtheria	31	4	6	0	30	1	67	5
Cerebro - spinal Meningitis	9	3	0	0	10	2	19	5
Infantile Paralysis	0	0	1	0	0	0	1	0
Pulmonary Tuberculosis	26	9	0	0	†—	—	26	9

† Notifiable only in the Metropolitan and Hunter River Districts.

THE HEALTH OF VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, during the week ending September 24, 1916:—

	Metropolitan. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Diphtheria	83	4	35	2	118	6
Scarlatina	21	0	2	0	23	0
Enteric Fever	2	0	2	0	4	0
Pulmonary Tuberculosis	18	9	7	8	25	17
C'bro-Spinal Meningitis	16	—	7	—	23	—
Infantile Paralysis	0	—	1	—	1	—

The following notifications have been received by the Department of Public Health, Victoria, during the week ending October 1, 1916:—

	Metropolitan. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Diphtheria	29	1	14	1	43	2
Scarlatina	6	0	7	1	13	1
Enteric Fever	2	0	3	0	5	0
Pulmonary Tuberculosis	18	7	7	5	25	12
Cerebro - Spinal Meningitis	9	—	2	—	11	—

INFECTIVE DISEASES IN QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending September 23, 1916:—

Disease.	No. of Cases.
Pulmonary Tuberculosis	12
Scarlatina	11
Diphtheria	22
Varicella	17
Enteric Fever	6
Erysipelas	4
Cerebro-Spinal Meningitis	2
Malaria	5

The following notifications have been received by the Department of Public Health, Queensland, for the week ending September 30, 1916:—

Disease.	No. of Cases.
Diphtheria	23
Infantile Paralysis	2
Pulmonary Tuberculosis	9
Scarlatina	5
Enteric Fever	10
Varicella	49
Erysipelas	5
Cerebro-spinal Meningitis	2
Ankylostomiasis	1

THE HEALTH OF SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, South Australia, during the week ending September 16, 1916:—

	Adelaide. Cs.	Dths.	Rest of State. Cs.	Dths.	Totals. Cs.	Dths.
Morbilli	17	2	146	0	162	2
Pertussis	28	0	85	0	113	0
Diphtheria	3	2	24	3	27	5
Pulmonary Tuberculosis	1	2	18	0	19	2
Enteric Fever	0	1	5	0	6	1
C'bro-Spinal Meningitis	0	1	1	0	1	1
Scarlatina	0	0	2	0	2	0
Erysipelas	1	0	1	0	2	0

The following notifications have been received by the Central Board of Health, Adelaide, during the week ending September 23, 1916:—

	Adelaide. Cs.	Dths.	Rest of State. Cs.	Dths.	Totals. Cs.	Dths.
Morbilli	10	0	118	0	128	0
Pertussis	13	2	69	0	82	2
Diphtheria	3	0	19	0	22	0
Pulmonary Tuberculosis	4	3	6	3	10	6
Erysipelas	0	0	4	0	4	0
Cerebro-spinal Meningitis	0	0	4	1	4	1
Enteric Fever	0	0	2	0	2	0
Scarlatina	0	0	1	0	1	0
Puerperal Fever	0	1	0	1	0	2

INFECTIVE DISEASES IN WESTERN AUSTRALIA.

The following notifications have been received by the Department of Public Health, Western Australia, during the fortnight ending September 16, 1916:—

	Metropolitan. Cases.	Rest of State. Cases.	Totals. Cases.
Enteric Fever	3	0	3
Diphtheria	6	8	14
Scarlatina	3	5	8
Pulmonary Tuberculosis	11	7	18
Erysipelas	2	1	3
Septicæmia	1	0	1
Cerebro-Spinal Meningitis	1	0	1

The following notifications have been received by the Department of Public Health, Western Australia, during the week ending September 23, 1916:—

	Enteric Fever. Cases.	Diphtheria. Cases.	Scarlatina. Cases.	Pulmonary Tuberculosis. Cases.
Metropolitan	2	2	0	5
Rest of State	0	9	2	1
Totals	2	11	2	6

THE HEALTH OF TASMANIA.

The following notifications have been received by the Department of Public Health, Tasmania, during the week ending September 23, 1916:—

Disease.	Hobart. Cases.	Launceston. Cases.	Country. Cases.	Whole State. Cases.
Diphtheria	6	1	11	18
Pulmonary Tuberculosis	1	1	0	2
C'bro-Spinal Meningitis	2	0	1	3
Enteric Fever	0	0	1	1
Infantile Paralysis	0	0	2	2
Scarlatina	0	0	1	1

The following notifications have been received by the Department of Public Health, Hobart, during the week ending September 30, 1916:—

Disease.	Hobart. Cases.	Launceston. Cases.	Country. Cases.	Whole State. Cases.
Diphtheria	3	2	10	15
Scarlatina	1	0	3	4
Pulmonary Tuberculosis	2	0	0	2
Cerebro-spinal Meningitis	3	1	1	5

THE HEALTH OF AUCKLAND.

The following notifications have been received by the District Health Officer, Auckland, for the month of September, 1916:—

	City. Cases.	Suburbs. Cases.	Country Districts. Cases.	Total. Cases.
Scarlatina	14	9	46	69
Diphtheria	21	10	24	55
Enteric Fever	3	3	41	47
Pulmonary Tuberculosis	10	9	13	32
Septicæmia	6	3	2	11
Hydatids	0	0	1	1

INFECTIVE DISEASES.

The fortnightly Bulletins of the Quarantine Service, issued on September 15 and 29, 1916, contain the following information:—

Variola.

Six cases of variola were reported in New South Wales during the four weeks ending September 28, 1916. One case occurred at Burren Junction on the 9th and five at Walgett on the 19th.

Since the issue of the last Bulletin, information has been received of 36 additional cases of small-pox in the Dutch East Indies, with 8 deaths. During the period from July 16 to September 9, 1916, two cases of varioloid were reported in the Philippine Islands. There were three cases of variola and two deaths in the Straits Settlements during the four weeks ending August 21, 1916.

Plague.

The number of cases of plague reported in India in the period from July 23 to August 26, 1916, was 14,472, with 10,413 deaths. There were 60 cases in Ceylon during the period from July 16 to September 2, 1916. In Egypt 13 cases were notified during the four weeks ending August 17, 1916, and there were seven deaths in the same period. There were three cases and three deaths in Hong Kong between July 16 and August 26, 1916. In Java there were 26 cases and 25 deaths registered between July 15 and August 25. In the Straits Settlements four cases were recorded in the period from July 11 to September 25, 1916. Four deaths occurred. One case was detected in Mauritius between April 28 and July 11.

Cholera.

The number of cases of cholera registered in the Philippine Islands from July 16 to September 9, 1916, was 491. In the same period there were 239 deaths. The latest reports from the Dutch East Indies record 61 cases, with 27 deaths. No dates are given. During the four weeks ending August 21, 1916, one case of cholera and one death were recorded in the Straits Settlements.

Typhus.

According to the United States Public Service Reports, the distribution of typhus fever from July 1 to August 25, 1916, was as follows:—

Place.	Cases.	Deaths.
Austria-Hungary	895	9
Canada	4	—
China	2	2
Egypt	348	141
Germany	10	6
Great Britain	6	4
Greece	2	39
Italy	1	1
Japan	135	—
Java	189	55
Mexico	4	78
Russia	896	55
Sweden	3	—
Switzerland	1	—
Turkey in Asia	10	1

Vital Statistics.

SYDNEY AND NEWCASTLE.

During the month of June, 1916, the number of births registered in the metropolis of Sydney was 1,711. The birth-rate was equal to an annual birth-rate of 26.88 per 1,000 of population, which compares unfavourably with the average for June in the preceding five years. The number of births registered during the quarter ending June 30, 1916, was 5,107, and the equivalent annual birth-rate was 26.76. There were 107 illegitimate births during the month, and 309 during the quarter. The illegitimate birth-rate for the month was equivalent to an annual rate of 1.68, which compares favourably with the average rate for June of the preceding five years.

The number of deaths registered during the month was 754, which brings the total for the second quarter of the year up to 2,008. The death-rate in June was equal to an annual death-rate of 11.88 and 10.52 for the quarter. The mean death-rate for the second quarter of the past ten years works out at 10.4. Of the 754 persons dying in June, 137 were infants under one year of age. The infantile mortality in June was 80 per 1,000 births, and in the quarter 69 per 1,000 births.

The Government Statistician calls attention to the fact that deaths from senility, developmental diseases of infants, diseases of the heart, diarrhœa and enteritis, pulmonary diseases, phthisis, and Bright's disease have increased in frequency, and that deaths from epidemic diseases, cancer and hæmorrhage of the brain have decreased. During the month there were 155 deaths directly due to affections of the cardio-vascular system, including 91 from

organic diseases of the heart, 29 from cerebral hæmorrhage, 19 from arterial disease, including aneurysm, and 5 from acute endocarditis. The deaths from Bright's disease, numbering 49, and those from cirrhosis of the liver, numbering 9, should be added to the list as being indirectly associated with arterio-venous changes. Of the infective processes, tuberculosis was the most fruitful cause of death, there having been 50 attributed to this disease. In 41 of these cases the affection was pulmonary. Diarrhœa and enteritis caused 32 deaths, broncho-pneumonia 31, croupous pneumonia 28, acute bronchitis 19, chronic bronchitis 15, diphtheria 7, acute endocarditis 5, acute articular rheumatism, enteric fever, scarlatina and influenza 3 each, anterior poliomyelitis 3, septicæmia, pertussis, simple meningitis and cerebral spinal meningitis 2 each, and leprosy, erysipelas, varicella, tetanus, syphilis and pericarditis 1 each.

There were 3 deaths due to puerperal septicæmia, 1 to puerperal hæmorrhage, and 1 to "other accidents of childbirth." Among the causes of deaths of infants were 36 from premature birth, 19 from congenital debility, etc., 10 from congenital malformation, 10 from diseases peculiar to early infancy, and 1 from injury at birth. There were 49 deaths from cancer.

From the return for the quarter it is seen that there were 385 deaths from diseases of the cardio-vascular system, 119 from diarrhœa and enteritis, 118 from tuberculosis, 89 from croupous pneumonia, 66 from broncho-pneumonia, 36 from diphtheria, 36 from chronic bronchitis, 29 from acute bronchitis, 7 from enteric fever, 15 from simple meningitis, 11 from pertussis and 9 from cerebro-spinal meningitis. Cancer caused 166 deaths.

During the month of June, 229 cases of diphtheria, 198 of scarlatina, 144 of pulmonary tuberculosis, 27 of enteric fever, 10 of anterior poliomyelitis, 5 of malaria, and 2 of cerebro-spinal meningitis were notified to the health authority.

The returns for the Newcastle district are also given for the month of June and for the second quarter of the year. During the quarter there were 548 births, which gives a birth-rate equivalent to an annual rate of 37.32. There were 34 illegitimate infants. The number of deaths was 182, and the death-rate was equivalent to an annual rate of 12.4. The infantile death-rate is not given.

In regard to the causes of death, it appears that 41 were due to affections of the cardio-vascular system, including 24 from organic diseases of the heart. Of the acute infective processes, pneumonia heads the list, with 10 deaths, and is followed by diarrhœa and enteritis with 9, diphtheria with 5, pulmonary tuberculosis with 3, pertussis and influenza with 2 and enteric fever, erysipelas and tetanus with 1 each. There were 8 deaths from cancer, 4 from Bright's disease, 5 from puerperal albuminuria and convulsions, and 1 from cirrhosis of the liver.

The Board of Health received notifications of 11 cases of diphtheria, 8 of scarlatina, 4 of enteric fever, and 2 of tuberculosis.

The returns for the month of August of the vital statistics for the metropolis of Sydney reveal an increase in the number of births and a decrease in the number of deaths as compared with the average for August during the past five years. There were 1,846 births, which is equivalent to an annual birth-rate of 29.04 per 1,000 of population. The figures for August of the preceding five years were an average of 1,881, and an average rate corresponding to an annual rate of 29.58. There were 110 illegitimate births, and consequently the illegitimate birth-rate was equivalent to an annual rate of 1.68. This compares favourably with the average for August, which was equivalent to an annual rate of 2.41.

The number of deaths registered was 728. Of these 106 were of children under one year of age, and 161 of children under five years of age. In 207 instances the deceased was 65 years or over. The death-rate is equivalent to an annual rate of 11.4, which is 5.5% below the average for the corresponding month in the previous five years. The infantile mortality was 57 per 1,000 births. The figure for August of the preceding five years was 62.

Among the causes of death those referable to the cardio-vascular system as usual occupy the first place. There were 145 deaths in this class. This includes 87 deaths from organic disease of the heart, 24 from cerebral hæmorrhage, 12 from atheroma, etc., 7 from embolism and thrombosis, and 6 from aneurysm. There were 65 deaths from malignant disease, the growth involving the stomach and liver in 21 cases, the peritoneum or intestines in 13, the female genital organs in 8, the breast in 4, the mouth in 3, the skin in 1, and "other organs" in 15.

Of the infective processes, tuberculosis heads the list. This disease caused 47 deaths. In 33 cases the organs affected were the lungs. It appears that the average number of deaths from pulmonary tuberculosis in August of the past 10 years was 41.8; the figure for the month under review is the lowest in the series. Pneumonia also caused 47 deaths, and broncho-pneumonia 29. In the comparative statement both forms are classed together, and consequently confusion results. There were 14 deaths from epidemic cerebro-spinal meningitis and 6 from simple meningitis. There were 10 deaths from acute bronchitis, and 11 from diarrhœa and enteritis. Diphtheria caused 9 deaths, pertussis 6, acute endocarditis 5, scarlatina, influenza, erysipelas, acute rheumatism 4 each, syphilis 3, encephalitis and pericarditis 2 each, enteric fever, malaria, dysentery, septicæmia and a gonococcal infection 1 each. Bright's disease was fatal 48 times, while acute nephritis caused 5 deaths. There were 14 deaths from chronic bronchitis. Among the deaths associated with the puerperal condition, three were due to puerperal septicæmia, and one to *phlegmasia alba dolens*, 3 to puerperal hæmorrhage, and 2 to eclampsia.

It is noteworthy that there were no deaths from morbilli notwithstanding the fact that in August, 1912, 62 individuals died of this complaint.

The returns of births and deaths registered in the Newcastle district have also been published. During the month of August, 1916, 204 births were registered, including 101 males and 103 females. This rate is equivalent to an annual birth-rate of 41.64 per 1,000 of population. The rate is higher than that registered in August during the past 10 years, or in any month during the past 12 months. There were 10 illegitimate births, and consequently the illegitimate birth-rate was equivalent to an annual rate of 2.04.

There were 80 deaths registered during the month, 40 being of males and 40 of females. Twenty-nine of these deaths occurred in public institutions. The death-rate was equivalent to an annual death-rate of 16.33 per 1,000 of population. Since 1907 the death-rate has only exceeded this level in August once. The average death-rate for August during the past 10 years was 12.88. Of the 80 deaths 19 were of infants under one year of age. The infantile mortality was therefore 93, a figure which compared unfavourably with those for the previous years.

There were 21 deaths due to diseases of the cardio-vascular system, including 12 ascribed to organic disease of the heart. There were 6 deaths from pneumonia, 4 from Bright's disease, and 4 from acute bronchitis. The only cases of notifiable infective diseases which terminated fatally were 2 from diphtheria, 2 from pertussis, 1 from influenza, 1 from cerebro-spinal meningitis, and 1 from pulmonary tuberculosis.

During the month of August 265 cases of scarlet fever were notified in Sydney and 6 in the Newcastle district; 203 of diphtheria in Sydney and 14 in Newcastle; 126 of pulmonary tuberculosis in Sydney, 34 of enteric fever in Sydney, 22 of cerebro-spinal meningitis in Sydney, and 1 in Newcastle; 2 of anterior poliomyelitis in Sydney and 1 in Newcastle, and 2 of malaria in Sydney.

SOUTH AUSTRALIA.

The returns of births and deaths registered in South Australia during the month of June, 1916, contain, *inter alia*, the following information. The population was estimated on January 1 at 439,660. The number of births during the month of June was 1,075. The birth-rate, expressed as an annual birth-rate, was 29.40. The birth-rate was higher in June, of 1911, of 1913, and of 1914, and lower in June, of 1912, and of 1915. No figures are given in regard to the number of illegitimate children born.

There were 436 deaths during the month. The death-rate is equivalent to an annual rate of 11.82 per 1,000 of population. Of the 436 deaths, 69 were of infants under one year of age. The infantile mortality works out at 64.18 per 1,000

births. There were 46 persons aged 80 or over at the time of death.

Diseases of the cardio-vascular system caused 80 deaths, while 21 were due to Bright's disease and 1 to hepatic disease. Tuberculosis caused more deaths than any of the other infective processes, *viz.*, 37. There were 25 deaths from pneumonia, 18 from diarrhœa and enteritis, 15 from bronchitis, 14 from diphtheria, 10 from meningitis, 4 from enteric fever, 2 from morbilli, the same number from influenza and 1 one from erysipelas, 1 from septicæmia, 1 from tetanus and 1 from acute nephritis and 1 from articular rheumatism. Puerperal septicæmia caused 2 deaths. There were 34 deaths from malignant disease.

The population of the city of Adelaide was estimated on January 1, 1916, to be 43,743. There were 97 births registered within the city during the month, bringing the total for the first half-year to 552. The birth-rate during the month was equivalent to an annual birth-rate of 2,664. The birth-rate for the half-year was equivalent to an annual rate of 25.24 per 1,000 of population. There were 100 deaths registered within the city during the month and 686 during the six months ending June 30, 1916. After deducting the deaths of persons not usually resident in the city, the number of deaths for the month is reduced to 64. The corrected death-rate is therefore equivalent to an annual rate of 17.52 per 1,000 of population. An analysis of the causes of death is appended.

Special Correspondence.

(By Our Special Correspondent.)

LONDON LETTER.

The Family Doctor.

In a recent article in the *Hospital*, the family doctor comes in for some kindly and sympathetic criticism. It is pointed out that patients used to have faith in the old family doctor, because he "understood their constitutions." By the modern scientific physician, especially when he is still young, this kind of knowledge is sneered at and regarded as a silly concession to superstition. But perhaps there is more truth in it than he knows. The family doctor of long ago knew all about his patients, their family histories, and their tendencies; he followed their careers and from a multitude of sources he accumulated a store of information concerning them that became invaluable in times of sickness and distress. He knew all about their weak as well as their strong points, both physical and mental; what they were capable of doing, and what most probably would prove too much for them to accomplish; how they were likely to react to prosperity or adversity, to temptation or trial; how they were predisposed to certain forms of disease; and how they would probably stand up against illness when it came and emerge from the ordeal. It must also be remembered that the family doctor was more than a medical adviser, he was also a confidential friend, to whom his patients came with all varieties of troubles and difficulties in no wise connected with their state of health. The wise physician was a friend in need as well as in deed to all his clients, and was regarded by them as one to whom they could appeal with full confidence in every emergency of life. He brought many of them into the world, and he saw many of them out of it. From the dawn of life to its close, he was regarded as an established factor in the existence of those to whom he ministered, and was more depended on, in many a community, than any other member of it.

Such a man exerted a widespread influence for good, and if his methods of diagnosis and treatment were less refined, and even less accurate than those of the more scientific graduate of to-day, he made fewer mistakes than they give him credit for, because his clinical instinct and careful observation guided him aright, though perhaps he knew not why. He was seldom dogmatic, did not fear to confess that a case here-and-there puzzled him, and carried out the duties of his life, both professional and social, with a more humble reverence for things beyond his ken than is the habit of the present time.

Such a man was a valuable asset to the community, and no mean citizen of the State.

It seems as though the processes of evolution will, ere long, end in his submersion; but the world will be poorer and the sick less well cared for when those of whom Ian Maclaren's Doctor Maclure was the prototype have passed away entirely from the haunts of men.

The Report of the Commission on the Birth-Rate.

Bishop Boyd-Carpenter's Commission, which was appointed in 1913 by the National Council of Public Morals, to enquire into the causes and effects of the declining birth-rate, issued its report on June 14, 1916.

From an examination of the available statistical returns, and from other sources of information, the Commissioners believe the following propositions to be definitely established:—

(1) That the birth-rate has declined to the extent of approximately one-third within the last thirty-five years.

(2) That this decline is not, to any important extent, due to alterations in the marriage rate, to a rise of the mean age at marriage, or to other causes diminishing the proportion of married women of fertile age in the population.

(3) That this decline, although general, has not been uniformly distributed over all sections of the community.

(4) That, on the whole, the decline has been more marked in the more prosperous classes.

(5) That the greater incidence of infant mortality upon the less prosperous classes does not reduce their effective fertility to the level of that of the wealthier classes.

Two other statements, based on less substantial evidence, are incorporated in the report:—

(1) Conscious limitation of fertility is widely practised among the middle and upper classes, and there is good reason to think that, in addition to other means of limitation, the illegal induction of abortion frequently occurs among the industrial population.

(2) There is no reason to believe that the higher education of women (whatever its indirect results upon the birth-rate may be) has any important effect in diminishing their physiological aptitude to bear children.

After discussing the economic and social aspects of the problem, the Commissioners say it is very difficult to make any recommendations of practical value for a solution of the housing problem, both urban and rural. A chapter is devoted to the limitation of births and sterility from the moral, medical and religious points of view.

In an addition to the report, methods of preventing or arresting the decline are dealt with; among others specially considered are the "living wage," State bonuses for families, income tax abatement, and facilities for cheap secondary and higher education.

Correspondence.

THE ORGANIZATION OF THE MEDICAL PROFESSION.

Sir,—I notice in issue of 7th inst. that the Director-General of Medical Services recommends all medicos to take at once a commission in the A.A.M.C. While this suggestion is very good, I think that something should be done for those men who took up commissions years ago and still hold the same rank to-day that is granted to a recent graduate.

I met a medico the other day who has just returned from Egypt. He is over 40 years of age, and has held a commission of captain in the A.A.M.C. for some years, and has done fifteen months' active service and to-day holds the same rank and privileges as a young graduate who has just joined the Forces and the profession. In the R.A.M.C. and the C.R.A.M.C. a man has hope of promotion for service. Why cannot this be done in Australia? If a man be five years in the A.A.M.C. (active or reserve) and joined the active list, and when he reverts later to the Reserve again let him be granted an honorary step in promotion.

This would give life and hope to the A.A.M.C. Being purely honorary rank would not cost the Commonwealth a penny more.

Yours, etc.,

October 7, 1916. "M.D."

Books Received.

ANATOMY: DESCRIPTIVE AND APPLIED, by Henry Gray, F.R.S., Nineteenth Edition, Edited by Robert Howden, M.A., D.Sc., M.B., C.M. Notes on Applied Anatomy, revised by A. J. Jex-Blake, M.A., M.D., F.R.C.P., and W. Fedde Fedden, M.B., M.S., F.R.C.S., 1916. London: Longmans, Green & Co.; Sydney: George Robertson; Royal 8vo., pp. 1304, with 1143 illustrations. Price, 32s.

THE ESSENTIALS OF HISTOLOGY: DESCRIPTIVE AND PRACTICAL, by Sir Edward A. Schäfer, M.D., Sc.D., LL.D., F.R.S.; Tenth Edition, 1916. London: Longmans, Green & Co.; Sydney: George Robertson & Co.; pp. 563. Price, 10s. 6d.

THE TREATMENT OF DISEASES OF THE SKIN, by W. Knowsley Sibley, M.A., M.D., B.C., M.R.C.P., M.R.C.S. Second Edition, 1916, London: Edward Arnold Crown 8vo., pp 307 Price 6s.

Medical Appointments.

Dr. William Lowe has been appointed Officer of Health for the Heidelberg Shire, Victoria, in place of Dr. H. K. King (resigned).

Dr. H. Dryden Stead has been appointed District Medical Officer and Public Vaccinator at Menzies, Western Australia.

Dr. Metcalfe Sharpe has been appointed Government Medical Officer at Dunedoo, New South Wales.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xix.

Ballara District Hospital, Medical Officer.

Department of Defence, Trained Nurses for Service with A.A.M.C.

Royal Australian Naval Medical Service, Temporary Surgeons.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	Brunswick Medical Institute. Bendigo Medical Institute. Prahran United F.S. Dispensary. Australian Prudential Association Proprietary, Limited. National Provident Association. Life Insurance Company of Australia, Limited. Mutual National Provident Club.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	The F.S. Medical Assoc., Incorp., Adelaide.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Brisbane United F.S. Institute.
WESTERN AUSTRALIA. (Hon. Sec., 230 St. George's Terrace, Perth.)	Swan District Medical Officer. All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Department of Public Instruction—New Appointments as Medical Officer, Ophthalmic Surgeon, Ear, Nose and Throat Surgeon, Physician. Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance Association and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Orange. F.S. Lodges at Parramatta, Penrith, Auburn, and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	F.S. Lodges, Wellington, N.Z.

Diary for the Month.

Oct. 17.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Oct. 18.—W. Aust. Branch, B.M.A., General.
Oct. 20.—Q. Branch, B.M.A., Council.
Oct. 20.—Eastern Suburbs Med. Assoc. (N.S.W.).
Oct. 20.—N.S.W. Branch, B.M.A., Branch (Adjourned from September 15).
Oct. 21.—Northern Suburbs Med. Assoc. (N.S.W.).
Oct. 25.—Vic. Branch, B.M.A., Council.
Oct. 26.—South Aust. Branch, B.M.A., Branch.
Oct. 27.—N.S.W. Branch, B.M.A., Branch (Ordinary).
Oct. 31.—N.S.W. Branch, B.M.A., Medical Politics Committee, Organization and Science Committee.
Nov. 1.—Vic. Branch, B.M.A., Branch.
Nov. 3.—Q. Branch, B.M.A., Branch.
Nov. 9.—Vic. Branch, B.M.A., Council.
Nov. 10.—N.S.W. Branch, B.M.A., Clinical.
Nov. 10.—S. Aust. Branch, B.M.A., Council.
Nov. 14.—N.S.W. Branch, B.M.A., Ethics Committee.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.